

# THE JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION.

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*[Authors alone are responsible for the contents of their respective Papers.]*

## SECRETARY'S NOTES.

1. On 7th March His Royal Highness the Prince of Wales visited the Institution, and spent a considerable time in the Museum.

2. *New Members.*—The following officers became members of the Institution during the month of February :—

Lieut.-Colonel E. J. Phipps-Hornby, *M.C.*, R.H.A.  
Lieutenant H. G. Parkyn, 5th Battalion The Rifle Brigade.  
Major F. H. D. C. Whitmore, Essex Imperial Yeomanry.  
Colonel W. Douglas, D.S.O., late Royal Scots.  
Major R. W. Breeks, R.H.A.  
Major C. B. Simonds, R.G.A.  
Lieutenant Sir G. C. A. Arthur, Bart., late Imperial Yeomanry.  
Major E. Vaughan, Manchester Regiment.  
Major R. L. Stable, Loyal North Lancashire Regiment.  
Lieutenant J. A. Davenport, Lancashire Fusiliers.  
Major S. Belfield, R.H.A.  
Second Lieutenant Hon. FitzRoy R. Somerset, Grenadier Guards.  
Lieut.-Colonel Hon. G. C. Twisleton-Wykeham-Fiennes, 3rd Battalion Royal Scots Fusiliers.  
Colonel T. C. P. Calley, M.V.O., 1st Life Guards.  
Lieutenant J. T. North, 2nd Dragoon Guards.  
Captain W. Leetham, late 5th Dragoon Guards.  
Captain F. M. Lane, Indian Army.  
Second Lieutenant Hon. R. E. M. Ramsay, Scots Guards.  
Colonel H. A. Sawyer, late I.S.C.  
Lieutenant T. Fisher, R.N.  
Lieutenant W. Ommanney, R.E.  
Major H. L. Richardson, Indian Army.  
Lieutenant C. R. K. Bacon, Queen's Royal West Surrey Regiment.  
Lieutenant E. H. H. Lees, The Border Regiment.  
Colonel M. V. Hilton, late Worcestershire Regiment.  
Captain R. Hare, The Royal Fusiliers.

(No officer of the Royal Naval Reserve or of the Volunteer Force joined the Institution during the month.)

3. *Council.*—The following officers were elected members of the Council at the Anniversary Meeting held on 7th March :—

*Royal Navy.*

Admiral Sir R. H. Harris, K.C.B., K.C.M.G. (President, R.N. College, Greenwich).

Captain C. L. Ottley, M.V.O., R.N. (Director of Naval Intelligence).

Captain E. J. W. Slade, M.V.O., R.N. (Captain of the Royal Naval College).

Captain G. A. Ballard, R.N. (Assistant Director of Naval Intelligence).

*Regular Army.*

Field-Marshal The Right Hon. The Earl Roberts, F.C. K.G., K.P.

G.C.B., O.M., G.C.S.I., G.C.I.E.

General Lord William Seymour, K.C.V.O.

Major-General Sir G. H. Marshall, K.C.B.

Major-General R. S. S. Baden-Powell, C.B., Inspector of Cavalry.

*Militia.*

Colonel His Grace The Duke of Bedford, K.G., 3rd Batt. The Bedfordshire Regiment.

*Volunteers.*

Lieut.-Colonel C. E. H. Hobhouse, M.P., 3rd V.B. The Gloucestershire Regiment.

4. *Special Military Essay.*—A slip containing the subject and conditions of the Special Military Essay will be found in this number of the JOURNAL.

5. *Nelson Centenary Exhibition.*—The Council have decided that the admission fee to the Nelson Exhibition, to be held from 1st May to 31st October, shall be one shilling, except on Saturdays, when it will be sixpence. Bluejackets and soldiers in uniform will still be admitted free. The privilege of members introducing friends by ticket or otherwise will be suspended during the Exhibition. Members themselves will have free access to the Museum as usual.

6. *Additions to Museum.*—His Royal Highness the Prince of Wales has graciously contributed the telescope used by Lieutenant Pasco, the officer in charge of the signals on board H.M.S. "Victory" at the Battle of Trafalgar.

7. *1904 Essay: Prize Winners.*—The Gold Medal of the Institution and the First Trench Gascoigne Prize of Thirty Guineas for the 1904 Essay have been awarded to Lieut.-Colonel C. E. D. Telfer-Smollett, 3rd Battalion the South Staffordshire Regiment, and the Second Trench Gascoigne Prize of Thirty Guineas to Major G. F. MacMunn, D.S.O., R.F.A.

8. *Extra Lectures.*—The following additional lectures have been arranged:—

March 23rd (Thursday), at 3 p.m.—"Some Observations on Sounding and the Admiralty Charts," by Lieutenant H. W. H. Helby, R.N. Chairman, Rear-Admiral Sir W. J. Wharton, K.C.B., F.R.S. (late Hydrographer to the Navy).

March 28th (Tuesday), at 3 p.m., "Modern Military Rifles," by Major The Hon. T. F. Fremantle, 1st Bucks. V.R.C. Chairman, Lieut.-General Sir J. D. French, K.C.B., K.C.M.G.

9. *Alteration in Lecture List.*—The lecture which was to have been delivered by Colonel Gouraud on 30th March has, owing to the indisposition of the lecturer, been cancelled.

10. *Officers' Library.*—It is hoped that further lists enumerating the 20 best books for an officer's library will be submitted.

11. *Change of Rank and Address.*—Members are reminded that it is essential, for accuracy of address, that they communicate any alteration in rank or address to the Secretary.

## HORSES OF DIFFERENT COUNTRIES, AND SUPPLY WITH RELATION TO MILITARY SERVICES.

*By Major J. MOORE, Army Veterinary Department.*

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Wednesday, 7th December, 1904.

Major-General H. C. O. PLUMER, C.B., Quartermaster-General,  
in the Chair.

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THE experience of the Boer War has shown the imperative necessity, for all time, of a maintenance of a proper enquiry into the resources of every country with regard to its horse population, and to the feasibility of supply in time of war. To know where to go when the necessity arises, and to have everything so cut and dried that remount operations can be immediately started, is a matter of prime importance.

I am afraid you will think the subject of my lecture a very embracive one. It certainly is; and in the short space of time allotted to me, I can touch but briefly on many of the countries—merely a mention in many cases. But I trust the wide subject will be the means of promoting a good discussion, eliciting opinions of those more experienced than myself. I have endeavoured to get here to-day gentlemen who have had this experience, and whose knowledge must therefore be valuable.

I wish to make a strong point of our own country and our Colonies, because I consider therein lies our first line of supply in time of need—our vast Colonies, perhaps, more particularly, to which we can always go without let or hindrance, and to which we should first give our support and custom before going elsewhere. I shall leave the consideration of the British Empire till the end of my lecture.

Some time ago I set myself the task of roughly determining the horse population of the world, and I ask you now to bear with me in the matter of a few figures. Indeed, I fear that throughout the lecture I shall have to quote statistics more or less, but I promise that I shall bore you as little as possible with them.

I calculate that the equine population of the world is close on 80,000,000. The United States Department of Agriculture, a very go-ahead and up-to-date Department, computes the number at 75,000,000.

By continents, I estimate the number approximately as follows:—

Europe	- - - - -	40,000,000
Asia	- - - - -	11,000,000
Africa	- - - - -	1,250,000
America	{ North America, including Canada and Mexico - }	19,000,000
	{ Central and South America - }	6,000,000
Australasia	- - - - -	2,000,000
		<hr/> 79,250,000

Of the 40,000,000 horses in Europe, there are in:—

Russia (European Russia)	- - -	22,096,000
Germany	- - -	4,184,000
Austria-Hungary	{ Austria 1,711,000 Hungary 2,309,000 }	4,020,000
France	- - -	2,900,000
Italy	- - -	742,000
Norway and Sweden	{ Norway 151,000 Sweden 525,000 }	676,000
Denmark	- - -	449,000
Holland	- - -	285,000
Belgium	- - -	241,000
Switzerland	- - -	109,000
Portugal	- - -	220,000
Spain	- - -	397,000
Greece	- - -	100,000
Turkey in Europe	- - -	300,000
Bulgaria	- - -	344,000
Servia	- - -	180,000
Roumania	- - -	864,000
The United Kingdom of Great Britain and Ireland	- - -	3,000,000

#### RUSSIA.

It will thus be seen that Russia has by far the greatest number of horses in Europe—23 millions out of a total of 40 millions. Add to this several millions more at her command in Asiatic Russia and Mongolia, we see her wealth in horse-flesh, making her independent of any other country, a great source of strength in time of war. Yet with all this strength she jealously guards export. Being so much before the public at present in her war with Japan, it will be interesting to recount her resources a little more fully than her neighbours.

Perhaps in no other country is more attention given by Government to the breeding of horses than in Russia. There are five Imperial and seven Military Studs. Of the Imperial Studs, there is a large one at Khrénovoi in the Don District, purchased from a descendant of the founder of the Orloff breed of trotting horses. This stud consists of saddle horses, trotters, and English thoroughbreds. The best mares here are said to be those got by Arab sires from English mares. Another large stud is the Belevodsk, embracing four establishments, viz.: (a) Derkoulsk, a very old stud, turning out carriage horses; (b) Streletz, devoted to Arabs; (c) Limarveo, also Arabs; and



(d) Novo Alexandrov, for half breeds. A third small stud is at Janow for half breeds; a fourth at Orenburg for the breeding of Kirghiz, or Steppe horses.

Of the seven military studs:—

- 4 are in the province of Kharkoff, for half breeds chiefly.
- 1 is in Voronej, for trotters and heavy draughts.
- 1 in Don, for Steppe and Oriental breeds.
- 1 in Poland, for half breeds.

The above will show that there is a considerable infusion of English thoroughbred and Arab blood in Russian horses.

Private studs are very numerous. In the Don District alone there are 866 private studs, with 3,100 stallions and 101,000 mares, more than in all the rest of Russia.

Under the direction of the General Stud (Government) there are 27 stables or depôts with 23,000 stallions for covering purposes in different parts of the country, and great improvement in local breeds has resulted from these.

The country is essentially one of riding and light draught horses. The Cossack district of the Steppes, with its breeds of Don, Kalmuck, Khirgiz and others; the provinces of Poltava, Kherson, Kieff, Podolia, Volhynia, and Bessarabia, in South-Western Russia, and Poland produce the riding horses. The provinces of Voronej, Orel, Koursk, Riazan, Toula, and Tambov produce the draught horses.

Compared with those of other countries, Russian horses generally are small, running chiefly from 14.0 to 15.1. 40,000 were obtained for mounted infantry purposes during the latter part of the Boer War, and were well reported on. They possess great substance, good back and loins, deep girths, and are active and very hardy. Their common fault is sickle-shaped hocks. The Don horse is inclined to be long-backed, and shows travel sooner than horses from other parts. The prevailing colours in Russian horses are dun, chestnut, and grey, all real hardy colours. Russian cavalry remounts are chiefly drawn from the Don District, though the twelve regiments of Horse Guards are horsed from Imperial studs, as Steppe-bred animals are not strong enough to mount the men. Polish horses are not good; they are flat-sided, long-backed, and weak. There are three very hardy indigenous breeds in Finland, the best of which is the Savolaskokarel, 14 hands, strong, with short legs, but rough for riding. A common colour of this breed is a cream with black legs, mane, and tail (Isabelle).

The animal of all others in Russia that would take our fancy for mounted infantry purposes is the semi-wild horse of the Steppes, the Khirgiz pony, a nomad type, numbering several millions. They are found in Orenburg and Turgai, Akmolinsk, Semipaltinsk, and Semirichia of Asiatic Russia. Seldom over 14 hands, robust, straight back, broad quarters, rather short in forehead, short hard legs, small and hard hoofs, short coat in summer, thick coat in winter, cream, roan, light chestnut, dun, flea-bitten grey, can go for two or three days without water, and do long journeys, price £6 to £8 in his own district, sums up his description and character. Some of these found their way to South Africa during the war, and their journey to the port of embarkation, Fiume, is most interesting—six or eight days' journey by road to Orenburg, there entrained and taken to a station on the

Volga, (either Samara or Saratov), then placed in open boats and floated down the Volga four to seven days to Tzaritzan, thence by rail to Fiume, 3,000 miles, one month's travel. And of all Russian cobs they presented themselves for purchase in the best condition.

Of other semi-wild horses of the Steppes, I may mention the Kalmuck breed, living between the Volga and Ural, ugly horses with heavy heads; also the Bashkirs, 600,000 in number, 14 hands, heavy head, thick coat, short back, good legs, used by Ural and Orenburg Cossack regiments. Winter tells heavily on Steppe ponies, many dying, especially those under five years of age, so that the remainder are the survival of the fittest.

Like most other European Continental countries, the horse-breeding industry of Russia is subservient to military requirements. A census of horses fit for the Army is taken every six years. For this purpose and for requisition of horses in time of war, each civil district is divided into Remount Circles, to which an official known as Director of Horse Census is appointed. After enumeration by this official the horses are inspected by specially detailed officers, and those fit for service are registered and classified according to the branch of the Service for which they appear suitable—cavalry, transport, pack. Copies of mobilisation tables are kept by local authorities and Director of Census. On mobilisation, these horses would be called up by the Director of Census, and for acceptance or otherwise would be examined by a board. No owner is compelled to part with more than half, and if he parts with one voluntarily, he is exempt for two from compulsory purchase.

This enrolment for probable military demands would in a great measure be prohibitive of exportation in large numbers, especially when good animals are likely to be taken; still, the country is sufficiently stocked with riding horses of a small size to be a field for purchase by a belligerent Power in time of war.

That exportation is allowed in time of peace is shown by the number of Russian ponies brought into England annually.

Russia could easily furnish eight horses to every man in its Army. Most other countries could find but two.

#### GERMANY.

According to the census of 1900 there were in Germany 4,184,099 horses, of which 2,913,003 were credited to Prussia. The principal horse-breeding districts are East Prussia, Hanover, some parts of the Province of Posen, the Duchy of Oldenburg, and Mecklenburg.

The good material of the country is appropriated almost entirely to supply the demands of military authorities, and the remainder may be said to be unfit for military purposes. Much has been done by the German Government to improve horse-breeding, but still a great part of inland demand has to be covered by importation; the extent of this will be seen from the following import returns:—

1899	-	-	-	-	-	-	118,796
1900	-	-	-	-	-	-	111,336
1901	-	-	-	-	-	-	101,321

So that Germany cannot be considered of any use to us as a field for remount supply.

£190,000 is spent annually by the Government in horse-breeding operations. Over 2,600 stallions of all grades, from the thoroughbred to the heavy draught, are maintained in rural studs and covering stations. Most of these are bought, though some are bred in State breeding studs, of which there are four, the largest being at Trakenen, in East Prussia. The Trakenen horse is now bred to type. He is an outcome of thoroughbred and hackney strains, is a low, long, black horse, 16 hands, with good limbs, beautiful head, rather long in the back. He is very gentle, and especially useful for harness work.

Hackney blood flows in the veins of the majority of German horses. The Hanoverian horse, also bred to type, is of imported hackney ancestry. This horse is a dark brown or chestnut harness horse about 16.1, with great limbs. The province of Oldenburg has long been famous for coach horses. In the Rhine provinces, Westphalia and Saxony, Belgians, Clydesdales, and Shires are bred.

The chief aim of the Government Stud Department is to provide remounts for the Army. The best remounts are found in East Prussia, Hanover, Oldenburg, and Mecklenburg, purchased at 3 years old, and kept in remount depôts for another year; the average price is £41 10s.

Germany buys on an average 21,000 horses from Belgium annually, taking, it is said, the best of the Ardennes horses.

All horses, with the exception of those belonging to reigning families, foreign embassies, Government officials requiring them for their work, physicians, veterinary surgeons, and postal service, are liable to be requisitioned in time of war, and for this end an inspection takes place every 18 months. Parish, county, and provincial lists are prepared, the horses being classified according to suitability for different branches of military service.

#### FRANCE.

Very little need be said of France from a supply point of view. The country really requires all it possesses. The total number is estimated at 2,900,000 in France, 205,000 in Algeria, and 35,000 in Tunis, her two principal horse possessions. Her war effective in horses is 577,620, the peace effective being 122,700. These are large numbers to be found out of a comparatively small total. Between 450,000 and 480,000 extra would be required to start a war, and a difficulty in meeting requirements, especially later requirements, would be experienced. Mobilisation experiments by requisition have at different times been made as tests, and have not been satisfactory. To try and encourage horse-raisers to produce a military horse a large special annual sum has been allowed since 1897, enabling remount service to pay higher prices than heretofore, condition for such higher price being a certificate from the seller of a horse stating that the animal is of French origin. There are twenty-two studs administered by the Department of Agriculture, whose object is to furnish good sires for improving the breed of French horses, especial attention being paid to stallions suitable for producing military horses. Of these I may mention Tarbes, in the Department of Hautes Pyrénées charged with distribution of English thoroughbred, Arab and Anglo-Arab stallions; Le Pin, in Normandy, where Norman, Percheron, and

qualified trotters (graded Hackneys) are used; St. Lo, also in Normandy, chiefly Norman and trotters.

The principal horse-raising districts in France are:—

1. The Departments of Basses and Hautes Pyrénées in the neighbourhood of Pau and Tarbes where light riding horses, 14.2 to 15.1 suitable for light cavalry and infantry are chiefly bred.
2. Normandy, the home of the Norman horse, chiefly draught, heavy riding (heavy cavalry and artillery) and a proportion of heavy draught, and
3. Brittany (Finisterre and Côtes du Nord principally), with its strongly built, heavy draught Percheron in the North, and the small hardy Brittany pony, 14 hands, in the South.

A horse census is taken annually, and a register of all horses and mules fit for military service is kept, the branch of Service to which each horse is assigned being stated.

The military maintains two breeding farms in Algeria, furnishing Arab and Barb stallions to Government studs in Algeria and Tunis.

Algeria is the cradle of the Barb horse, the points and quality of which are well known. He is essentially a riding horse, most suitable for mounted infantry, height 14.1 to 15 hands. The Department of Constantine contains the most, the Department of Oran a lesser number, and the Department of Algiers the least number. They cost the French Government £24 for troop horses, £35 for officer's horses.

Tunisian breeds vary much in size, quality, and appearance. They are not of much account. The French Government buys the best.

#### AUSTRIA-HUNGARY.

So much was written and said about the Hungarian horse during the Boer War that he is already familiar to most of us. Bought by good judges, his appearance promised better success in the field, but events proved him soft, lacking in stamina and a subject of laminitis (the sequel of exhaustion).

Associating cause with effect, I have often asked myself the reason of this failure in our Hungarian friend, in fact in all horses that were weighed in the South African balance and found wanting, and I find that apart from the transportation from a northern zone to a southern zone, or from one country to another, thereby necessitating acclimatisation, the horses that proved themselves the worst campaigners were those that were not grain-fed animals in their own country, and therefore had no bottom in them to begin with. The majority of Hungarian farmers give little or no grain to their horses. Lucerne is cultivated to a very great extent in the country, and this, mixed with other grasses, made into hay, forms the staple food for the stock. The Argentine pony, another animal badly reported on, is entirely grass fed, and will not look at grain for some time. The Australian horse generally is another example.

The range horses of North America were saved from a similar fate by a cast-iron constitution that had survived the hardest of winters, and by a grain diet for some time prior to shipment. On

the other hand, the horses that withstood the vicissitudes of the campaign best were those that were well nourished from a grain diet, *e.g.* the London 'bus horses.

Austria-Hungary is well stocked with horses, there being 1,711,000 in Austria, 2,309,000 in Hungary, making a total of 4,020,000.

Hungary is essentially a light horse country. Over £230,000 is spent annually in horse-breeding operations. Government maintains four state breeding studs, the principal of which is Mezohegyes, and has nearly 3,000 stallions scattered about the country. All the peasants breed extensively, 99 per cent. of the stock being bred by this class.

The ground-work of Hungarian horses is English thoroughbred, Arab, Anglo-Norman (Nonius), Lippieza (Austrian) blood (a mixture of Spanish and Arab), and Norfolk trotter strains. The average height is 15 to 15.1. Good-looking, glossy coats, good manners, rather light but clean legs, well set on head, back inclined to be long, shoulders straight, narrow in front and behind, is a general description. All go in harness in pairs in light four-wheeled carts; the foal at a fortnight old may be seen strapped to its mother's breast harness. They are generally put to light harness at 2 years old. The Hungarian peasant does not ride.

£140,000 per year is spent on horse-breeding operations in Austria proper. Over 2,000 stallions are distributed throughout the country, and no fewer than thirteen different breeds are in use. The horses are chiefly of a heavy draught and carriage class. Encouragement is given to retain local breeds pure. In the mountain regions the Pinzauer horses, a splashed coloured, small, strong, hardy breed, are well spoken of for draught and pack.

In addition to two state studs, there are two special breeding establishments at Kladrub and Lippieza, where carriage horses are bred. The Kladrub horses are large showy animals, chiefly used for royal carriages on state occasions, and are of Spanish and Italian descent. The Lippieza horses are handsome, hardy carriage horses, 15 to 16 hands, long bodied, and short legged. They are of Spanish, Italian, and Arab strains. Austria proper affords no field for remount operations.

There is no inspection in peace time to determine the fitness of horses for service on mobilisation. The Minister of Defence allots so many to be furnished from each province.

Remounts are usually bought direct from owners in the autumn at 3½ years, price being £27. A reserve of over 10,000 trained riding horses is maintained, the horses being farmed out with responsible people, and called up for 6 weeks' training of reservists each year.

Under heading Austria, I should like to mention Bosnian ponies, found in great numbers in the mountain districts of Bosnia. Though ugly, they are good, docile, hardy, substantial, blocky ponies, with good backs and broad quarters, and useful for pack purposes. Their usual load is 2 cwt. up and down the mountains. Their average height is 12.2 to 13 hands. They were bred originally from Arab blood, introduced by Turkish officials. About £10 or £12 would land them in England—probably 1,500 available.

An interesting feature about this pony is, that often his saddle is not taken off for 5 or 6 years at a stretch. It projects in front of the shoulder blade, and rests on the neck. The owner sits on this projection, and the load is carried on hinder part.

## ITALY.

Italy is not an important horse-producing country; in fact, the annual imports, chiefly from Hungary, amount to 38,000. For many years it was impossible to obtain the required number of suitable remounts for the Army without having recourse to importation, but by the institution of Government stud farms and the careful controlling of the quality of the stallions, sufficient remounts can now be obtained, and a gradual improvement in the breed of horses is taking place. Government maintains about 600 stallions; the majority are full or half-bred English or Arabs, some hackneys, Clydesdales, and Brabants. It will be remembered that Melton, the Derby winner of 1885, went to Italy.

All animals 14.1 and over that are considered fit for military service are registered by local authorities. They are periodically inspected, classified, and have their value assessed by military committees.

The ordinary Italian horse is a weedy, undersized animal, prematurely exhausted by overwork at too early an age.

The Maremma District of West Tuscany (Province of Grosseto) is the best. The Maremma horse is a stout, ugly, wiry animal, about 15 hands, bred on the wild system. They apparently enjoy great favour in the Italian Army, and many of the horses used in Rome, especially in omnibuses and cabs, hail from this district.

In the Island of Sardinia is a small, hardy, quick, and easily trained horse. The Italian Government sends an Army Commission there every year, and the best of the colts, 14 hands and over, are bought up young. Anything seen over six years old is worn out.

Of other European countries I need say very little. None of them would be of any value to us as a source of supply.

## NORWAY AND SWEDEN.

Scandinavian ponies are rough, sturdy, docile animals, the original stock still found in the forest lands of the North being probably of Tartar origin. Great improvements in breeding are taking place in the south and south-west of Sweden by importation of English blood stock, and for draught purposes, the Clydesdale, the Ardenne, the Shire, and Percheron.

## DENMARK.

Danish horses are good, light draught horses, long in the back as a rule, and slow, but, having good legs, they stand a good deal of knocking about. Germany is reputed to take 16,000 of them annually, many of them for omnibus work.

## THE NETHERLANDS.

Holland is not a horse-breeding country. The native horse is wanting in stamina, and remounts for Army are obtained from Ireland.

## BELGIUM.

The type of horse generally raised in Belgium is a heavy animal, known as the "Flemish Horse" in his heavier form, and as the



"Ardennes Horse" in a somewhat lighter form. The latter, bred in the Ardennes district, is a strong, compact horse, admirably suitable for artillery and draught purposes. The artillery and transport horses of the Belgian Army are all drawn from this district, the cavalry horses being imported. Germany buys on an average 21,000 horses from Belgium annually.

A curious and interesting feature of export returns of the United Kingdom is that about 23,000 horses are annually shipped to Holland and Belgium, export prices being quoted at from £11 to £14 respectively. This exportation is mainly for food. Perchance, our old familiar friends, B22 and X Battery 64, return to us in altered form.

#### SPAIN.

The horses of Spain, descendants of Barbs, as a rule are honest little animals, but lack stamina. They are only suitable for light draught and mounted infantry. The Spanish Remount Commissions take the pick, purchasing, at 3 years old, at £27. They are chiefly bred in the pasture lands of Andalusia, Estremadura, and La Mancha. They are notable as being the progenitors of the horses of the New World.

#### PORTUGAL.

Horse-breeding in Portugal is at a very low ebb, and 75 per cent. of the horses of the Army are obtained from Spain.

#### SWITZERLAND.

There are not enough horses in Switzerland to supply the needs of its own Army, and about 800 are imported annually, chiefly from Ireland, Northern Germany, and Hungary. These are issued by remount depôts to the men of the Elite, who pay half the appraised value. They use them in their private occupations, usually taking great care of them, and have 10 per cent. of what they paid refunded annually. The system is quite unique.

#### ROUMANIA, BULGARIA, SERVIA, GREECE.

Roumania and Bulgaria obtain most of their Army horses from Hungary and Russia; Servia from Hungary. The native ponies of these countries are only fit for pack and train purposes. Greece also obtains its supply from Hungary.

#### OTTOMAN EMPIRE.

The Turk is not given to furnishing statistics, and therefore it is not possible to estimate the number of horses in the Empire, particularly as regards Turkey in Asia, which is the only portion worthy of consideration from a remount point of view.

The stamp of horse to be found throughout the Turkish Empire is best suitable for light cavalry and mounted infantry, especially the latter. In the Turkish Service many of the cavalry and nearly all the artillery are from Hungary and Russia. Local horses have been tried for artillery in Turkey in Asia, but they are incapable of drawing heavy weights over rough ground.



Speaking generally of ponies of European Turkey, they are weedy and undersized, and not worth purchasing for military service. Asiatic Turkey affords a much better field, the best districts being the provinces of Erzeroum, Van, and Diarbekr in Eastern Turkey in Asia; the provinces of Sivas and Angora in Northern Anatolia; the Vilayets of Smyrna and Konia in Western Anatolia; and in Syria and Mesopotamia.

Roughly speaking, the breeds are:—

1. Kurdish, from Erzeroum, Van, Diarbekr, and Mosul.
2. Circassian, from the province of Sivas.
3. Anatolian, from Angora and Smyrna.
4. Arabs, from Mesopotamia and Syria.

The Arab is so well known to us that a description is unnecessary. He is by far the best. Heights run from 13.1 in the well-bred Nejdi of Arabia to 14.1 and 14.2 of the Aleppo and Urfa districts of Northern Syria. The price in his own country is on an average £20. Breeding is all in the hands of different nomad Arab tribes.

The Kurdish horse, bred by Kurdish tribes, is about the same size as Arab, but stouter, not of such high class, and cheaper.

[Kurdistan is ethnographical, rather than geographical nomenclature, and comprises a large belt of country partly in Persia and partly in Asiatic Turkey, with Mosul (site of ancient Ninevah) for its best known town.]

With regard to Asiatic Turkey as a source of supply, it is very doubtful if the country is sufficiently attractive in point of available numbers and quality to admit of much purchasing. A drawback is the long distances animals would have to travel by road to a port of embarkation, there being few railways in the best horse districts. For many years Syria, with Beirut as the shipping port, has been the purchasing ground for Egyptian requirements; but the drain on the country has diminished the supply, and at the outside 2,000 per annum, 14 hands and upwards, would be all that could be obtained. However, with Alexandretta as a collecting and shipping port, better results might accrue. From here, Northern Syria, Mesopotamia, and Kurdistan, even into Persia, could be tapped, working along the caravan routes by Aleppo, Urfa, Mardin, Diarbekr, Mosul, and Suleimanieh. About 3,000 could be obtained along this line, but the price at port of embarkation would probably be £30. It would also be possible to draw Circassian horses from the province of Sivas to Alexandretta, thus adding to the numbers; and in this matter an annual migration from the uplands of Sivas to Adana and the Sicilian plain for the winter would be found rather convenient.

It would be waste of time drawing animals by way of the Black Sea. The state of society in the provinces bordering the Trans-Caucasus is such that owners find their horses too useful to part with. Besides, there are 63 regiments, 32,000 horses, of the Hamidieh or Irregular Militia Cavalry of the Kurdish tribes, and after their requirements are fulfilled, nothing remains; their horses are all branded.

If shipments were required east, by way of the Persian Gulf, the same caravan route previously mentioned could be worked on, Mosul being the principal purchasing centre, Busra being the port of embarkation. There are annual shipments to Bombay from this direction. In normal times each of the Bombay market dealers has from

200 to 500 collected for shipment; but these numbers could be augmented in time of war. It is considered that remount operations from the Persian Gulf would be disappointing and a tedious process. Arab horses could perhaps be bought cheaper in Bombay. However, shipments might be supplemented from Persia, drawn either by way of Bagdad or Bushire.

#### PERSIA.

The Persian horse is very nearly related to the Arab, but is more slender in build, though slightly taller as a rule. There are, however, other breeds in Persia, viz., the Turkoman and mixed Turkoman and Persian in the north-east; the Karadagh, a Cossack breed, in the north-west, near the Russian border; the Kurdish horse of Kurdistan; and the Arab in the west and south-west. The best districts for horses are the province of Khorosan and the Kermanshah and Hamadan districts of Kurdistan. The breeding is chiefly in the hands of nomad tribes, who follow the same methods of breeding as Arabs in Mesopotamia, but in all these districts the numbers available are less than formerly. Speaking generally, the horses are mostly of the native Indian cavalry or mounted infantry type. All purchases would be entire; mares are never sold and seldom ridden. £16 or £17 would buy a good native cavalry horse, and ponies, 13.3 to 14.1, that would do for mounted infantry, would cost £10 to £12, but the cost of transportation to shipping points would be an extra £10. There being no railways in Persia, all animals would have to go by road, and travelling would have to be done during winter months on account of the scarcity of water.

It is estimated that Persia, exclusive of Khorosan, could supply 4,000 horses. Khorosan could supply 3,000 horses, 13.3 to 14.1, and about 7,000 baggage ponies, 12.3 to 13.3. Khorosan animals could go by march route to India, *viâ* Quetta.

#### CHINESE EMPIRE.

Of other Asiatic countries, time will only admit of my making very brief reference. I have already alluded to the horses of Asiatic Russia, with its large numbers of ponies bred by different tribes. Chinese Turkestan—for the most part low desert—is not rich in horses. Mongolia is, however, well stocked with ponies of sorts. Interest is to some extent attached to it at present on account of the Russo-Japanese War. It is also more accessible and nearer ports of embarkation. Nomad Mongols devote their attention to the breeding of horses, one of the uses of which is for the production of koumiss, or fermented mare's milk, the staple drink of these nomads.

The Mongolian pony is from 12.1 to 13.3 in height with an occasional 14.1. They are hardy, can live in the open in all kinds of weather, and are up to great weight compared with their size. Though trained in a rough way, they require a good deal of handling and riding before becoming handy and reliable; they are very slow. In 1900 the Indian cavalry, mounted on 14.0 to 14.2 Arabs, rode down the Chinese on Mongolian ponies in a very short distance.

The best and largest comes from the extreme north, especially round Lake Kulan, east of Urga.

Dolon Nor or Kalgan are good collecting centres; probably 1,000 could be got at the latter place. Large numbers are brought down to China during the winter every year, and the average price in Peking or Tientsin is about £4 10s.

Enormous herds of small ponies, useless for military requirements, exist in Southern Mongolia (Gobi desert). Their hoofs are worn very short, and their teeth are also worn down with grazing on stony ground.

What is termed the "Chinese pony" is really the Mongolian pony. There is a China pony proper, however, existing in the southern provinces. It scarcely reaches 12.1, and is of the same breed as ponies of Annan, Siam, and Burmah.

#### JAPAN.

I come now to Japan, around which, in her gigantic struggle with Russia, so much interest centres. It is a curious fact that in the present war, Russia, with her enormous resources in horses, Japan, with her poverty in the same direction, we hear and read so little of the part taken by horses. Yet I suppose requirements and expenditure must be enormous. Where Japan draws her supply from has not been stated. In the year 1898 (the last quoted census) there were 1,587,891 horses, and the Government experienced great difficulty in providing horses for the Army. The animals of the country are poor-looking ponies, 13.2 to 14.2, with straight shoulders, narrow chests, drooping quarters; but they are tough, and need little care.

Three principal types are noted:—

1. The Kiushiu-Satsuma horse, which has a strain of Arab blood.
2. The Yezo horse, said to be the best, and which forms the chief remount.
3. The Nambu horse, a capital draught animal.

It was remarked of Japanese cavalry horses with the Allied Forces in China in 1901, that they were an uneven lot of country breds, 14.1 in height, with large plain heads, heavy chests, long legs, all stallions with a distinct cross of American trotting blood. They looked hardy and useful.

The transport animals were all stallion ponies. They were harnessed to a light framed cart with low wheels, a man to each pony. They worked hard and kept in good condition, but screamed and fought along the line of march.

However, the Japanese Government, alive to the military requirements of the country, have of late years made great efforts to repair the deficiency, both as regards the number and quality of the horses used for military purposes.

With a view to improving the breed of horses generally, studs have been established, and prizes awarded to breeders rearing good stock. A law was passed providing for the establishment of guilds in various urban and rural districts. These guilds are to a large extent self-governing bodies, but under Government restrictions. The Government reserves to itself the right of buying at market prices any horses fit for its own use. All persons wishing to engage in horse-breeding must form themselves into guilds, and no person is

allowed to become a horse or cattle dealer without first obtaining a certificate from the police, and must keep a record of his transactions. Stallions and mares are rigidly inspected as to their suitability for breeding purposes, and must be registered. American, Hungarian, French, Persian, and English are among the stallions imported. A glance at the agricultural returns of Great Britain shows that in 1900, 18 stallions at £309 each, and 5 mares at £227; and in 1901, 17 stallions at £385, and 3 mares at £150, were obtained.

During the China-Japanese War in 1894-95 the Japanese used a small number of Korean ponies for pack transport. The French also used these ponies in 1900. They are very hardy, sure-footed, 9 to 12 hands high, and only used for pack work. They bear the name of being pugnacious, and would require Korean horse-keepers to accompany them, as they know best how to manage them. Their value is £4 or £5.

The island of Quelpart, to the south of Corea, is reported to contain a considerable number of ponies of diminutive size.

#### THE NEW WORLD.

I will now ask you to cross the Pacific with me to the Americas, and consider the horses found there. Having lived in the United States for fifteen months, and visited Canada, Mexico, and the Argentine, I can speak with a fair amount of confidence.

It is idle of me to recount the tremendous progress the New World has made since its discovery in the 15th century, or to speak of the foremost position it occupies to-day—an object-lesson to parent countries. I wish only to mention that horses (and I should also like to add mules) have participated in this general progress, until now we find here the best field for supply, the most useful classes of animals, and the greatest available numbers in any portion of the globe. And it is every day getting better.

The trade in all kinds of stock is enormous, and the people are not those who drive custom from their doors.

For anyone who is fond of history of horse population, development of breeds, etc., there is ample scope here for much interesting study. Different invasions and occupations by European Powers have all left their traces. No greater mark has been made than by Spain when at the zenith of her power in the 15th century, and it is wonderful to note the extent of Spanish horse invasion. Freed from the restraint of man, escaped to the prairies when Spanish settlements were destroyed by Indians, horses roamed wild for hundreds of miles, right, I may say, from the Pampas of the Argentine, through Mexico, to the Rocky Mountains in British Columbia, forming original stock. To this invasion dates the small horses (Criollo ponies) of the Argentine, the horses of other South American countries, Mexico, and the Cayuse, or Indian pony, in the Western States of America and Western Canada.

To-day the Americans possess 25,000,000 horses, distributed, roughly, as follows:—

North America, including U.S.A.,	
Canada and Mexico - - -	19,000,000
Central and South America - - -	6,000,000
	<hr/>
	25,000,000

## UNITED STATES OF AMERICA.

By far the greatest number of the above—at least 17,000,000—are located in the United States of America, and it is of this country that for the present I wish to speak. Canada I purpose dealing with afterwards, under the heading of "Horses of the British Empire."

In point of numbers and general excellence, the United States in a matter of horses scarcely has its equal. Beginning in the early days of colonisation with importations of European stock, chiefly from England, the Netherlands, and Canadians of French origin, subsequent crossings with the English thoroughbred, and grading up with home productions, the present day American horses may be considered distinct in types, and creations of the country. Even the original Cayuse or broncho was improved in the early history of American horse-breeding by the use of thoroughbred and hunter sires, the progeny being small, but of excellent stamina.

Increase of population and prosperity of the country causes a constant large home demand, and the horse industry flourishes in consequence. A financial panic in 1893 caused for a time a depression in horse-breeding, but during the past few years the trade has steadily increased. At the present time the visible supply of desirable horses for all purposes of four and five years old is estimated at about 100,000, hardly, some say, enough to supply the average demand, but young animals are much more plentiful throughout the country, and with the increasing demand and interest that has been raised in breeding good animals which can readily be sold, the supply should be more ample in the future.

We are all perhaps familiar with the American trotting horse—more properly designated by the name of Standard Bred. The average American, particularly in the Eastern and Central States, prefers driving to riding. Everything lends itself to this—roads, convenience, excellent light vehicles, pleasure of driving, etc. The Standard Bred trotter or pacer is a highly specialised roadster, eligible for registry in a trotting register, and the result of years of breeding for the sole purpose of increased speed. The progenitor of this class is an imported English thoroughbred horse, Messenger by name, and more particularly through a horse named Rysdyk's Hambletonian, foaled in 1849. This latter horse is reputed to be the sire of 1,300 foals, 40 of which took records.

An idea of speed may be gained when I mention that Lou Dillon, a mare, 15.1½, holds a record of 1 minute 58½ seconds for a mile. Needless to say, there is a good demand for this trotting strain, the speciality of America. Leggy, light of bone, wide action behind, narrow to follow or to meet, upright and loaded shoulders, frequently ewe-necked, not always fine about the throat, ears, and head, frequently sloping and even flat quarters, light in ribs, and angular all over is the usual description—distinctly a light harness type. They are usually of most excellent temperament.

Other strains less highly specialised as trotters form the bulk of the American horses. Though from an English point of view they appear more of a light harness type, having low and loaded shoulders, and usually a short neck, yet they have excellent backs for riding purposes and good legs. From this class the American Government draws

its remounts, 15.1 to 15.3, and from it also the British Government obtained horses of a lesser height during the Boer War. There is a great demand for this animal for city and country trade.

Under the American Saddle Horse Breeders' Association, great endeavours are made to maintain an American saddle horse as a type. The progenitor of this strain was a thoroughbred stallion named Denmark, foaled in 1839, and brought to Kentucky. During the Civil War stock of this Kentucky strain performed most wonderful marches. When Morgan marched from Sparta in August to surprise a garrison at Gallatin, he accomplished the distance of 90 miles in 25 hours, and afterwards, in the Ohio raid, after two weeks of severe marching he covered 94 miles in 35 hours without halting, the greater number of his command of 2,100 performing it without flinching. Whether the present day American horse with its greater admixture of trotting blood can do it, it is difficult to say.

A demand for the best saddlers, 15.2 to 16.2, as hunters, now exists, riding to hounds gaining in popularity in the country.

About the year 1875, through the influence of State and National Association, interest was aroused in the breeding of heavier horses, Hackneys, Clydesdales, Shires, Normans, Percherons, Belgians, and French coach breeds being imported. This infusion of new blood resulted in greater size and better bone of the horses in general use on the farm and for sale in the market.

The breeding of thoroughbreds is rapidly assuming great proportions, and we often see American horses competing on the English turf. Racing in the States is unique, inasmuch as meetings are of 30 consecutive days' duration, or even more.

The principal breeding States for high-class horses of all kinds are Illinois, Iowa, Minnesota, Wisconsin, Michigan, and Indiana. These States supply Chicago and the east with their best horses, and the types produced are drafters, expressers, 'busers, farm chunks, coachers and drivers, high-class harness horses, and saddlers. Chicago is practically the centre of the industry; to it most of the animals find their way for sale. In these States and Kentucky many of the show horses and matched carriage horses are standard bred trotters.

Missouri and Kansas produce a large number of horses of an inferior type to the above, usually of the roadster and saddle classes, or for light farm work. Many are sent to the plantations of the Southern States. Better classes are very suitable for military service—cavalry and mounted infantry.

Texas bears a great name for horses, and produces them in great numbers. The best class, and the most numerous, is the cob, 14.2 to 15.0½, lighter in build than the average horse of the same height in Great Britain, but showing more breeding. He is, as a rule, ugly, long, narrow, and flat-sided, but his speed, hardihood, and endurance are phenomenal.

Comparatively few horses are bred in the Eastern States, the small farms in those older States not being able to compete with the large farms and ranches and cheap land of the newer Western States.

The North-Western States of the Union, viz., Washington, Oregon, Idaho, Montana, and Wyoming, present a large breeding district, and is the home of the "range horse."



Range or ranch horses of the present day comprise:—

1. Ponies, standing up to 14.2, descendants of the ancient stock that is known by the names of Cayuse, Indian pony, or mustang; of great endurance, useful for herding cattle, and furnishing good material for polo.
2. Saddlers and drivers, 14.2 to 15.2, crosses of coach, standard bred, and thoroughbred, and representing what the range is capable of producing in the way of horses.
3. Draught grades, chunks, 15 hands and upwards.

They are all branded. The prejudice against a branded horse is not so strong as formerly. The evil disposition of the old range horse or broncho, and his individuality, is being greatly improved by the more progressive ranchmen. Close communication with men, better methods of handling, and the infusion of good blood from the Eastern States and Europe, are all producing great changes, while the wonderful quality and endurance of the native stock are retained. Bred in mountainous regions, at an altitude of from five thousand to ten thousand feet, accustomed to fend for themselves, they are a survival of the fittest. So hard is their lot in winter that it is not uncommon to find many of them with the tips of their ears frozen off. My experience of range horses is that no idea of their quality can be formed by looking at them from a distance; it is necessary to get close up to them, to get into the middle of a herd of them, to see the strength and stoutness of back and loins through their roughness. They require handling with care at first, but they are readily broken in. In estimating the potentialities of the U.S.A. for horses for military purposes, the range horses must not be lost sight of. They are an improving stock, and moreover they have cheapness for their recommendation. Quite a large number of them were bought by our Government during the Boer War. The United States is often supplied with them for cavalry, and quite often branded horses are found in export stables.

The enormous trade in horses is done through stock yards or markets in large towns. The principal are Chicago, St. Louis, Kansas City, Omaha, Buffalo, St. Joseph, Indianapolis, and New York. The rapidity of sales by auction is remarkable, and the American auctioneer, a highly-paid man, is a revelation in expertness. An auction is quite one of the sights of the United States. Over 600,000 horses and mules are received at the different markets annually, and 225,000 head of horses are said to be sold, 25 per cent. of which might be classed as good.

Chicago (receiving 100,603 horses and mules in 1903) is the largest horse market. It is the best for draught classes, and the centre of export trade. The stock yards stables cover 100 acres, and will accommodate 6,000 horses. I attended a sale there in February last, and saw a good stamp of medium draught horse, suitable for agricultural work, parcel vanners, etc., sold, the average price being 150 dollars. It is not such a good market for saddle horse classes.

St. Louis (receiving 107,883 animals in 1903, of which 45 per cent. are mules), Kansas City (receiving in 1903, 63,437 animals) are better markets for these classes, particularly the former. By noting the receipt and shipment returns with regard to railway lines employed, it is easy to determine the States from which the animals



come and the States to which they go after purchase. Transportation of stock is admirably arranged; excellent stock-cars, to hold from 20 to 25 animals, are used, and a State law necessitates the unloading of all animals in transit for water and food every 28 hours.

Omaha is a market for range horses. Buffalo and Indianapolis are really feeders for the retail markets of eastern cities. Many horses in their journey east pass through several markets.

Prices of horses have gone up nearly 20 per cent. in the last two years. Mounted infantry cobs that cost us 85 dollars during the war, would cost us now 100 dollars at least. Cavalry horses, sold then for 100 dollars, would bring now 125 dollars. Horses suitable for artillery purposes were selling at St. Louis, on my visit in February, at from 135 dollars to 147 dollars. In Chicago prices were a little higher. On the whole, I thought St. Louis a more reasonable market.

The prices paid by the American Government this year for Army purposes were:—

Special riding.—220 to 300 dollars.

Cavalry.—147, 149, and 155 dollars.

Artillery.—167 and 170 dollars.

The rise in price is due to increased home demand for good horses, and to export. The total annual export in ordinary times is well over 60,000. Canada is the principal customer at present, and it is computed that her requirements this year will amount to at least 40,000, mostly of an agricultural stamp.

The export to Europe, chiefly to the United Kingdom, shows a falling off; 80 per cent. of the export is done through Chicago, and is chiefly of the light draught class—parcel vanners, 'busers, and carriage horses.

The British Government during the Boer War purchased 107,511 horses and 80,524 mules. The system of purchase adopted was the placing of orders with approved agents. To purchase at auctions would have been impossible. The purchase grounds lay chiefly west of the Mississippi, and the horses selected were almost entirely of the riding classes. They were very favourably reported on in South Africa, particularly the mounted infantry cob.

Though my paper relates only to horses, I am loath to close my altogether inadequate remarks on the U.S.A. without making mention of the American mule—peer of mule kind—the most handsome, hardy, useful, and satisfactory animal extant, and of greater average value than horses in his own country. From the small miner, 12.3 to 13 hands, to the magnificent heavy sugar mule, 16.2, he is bred in Missouri and contiguous States, also in Texas, and his market is for mines, lumber trade, and the cotton and sugar fields of the south. I take off my hat to the St. Louis mule that was regularly hunted with one of our best English packs some few years ago. Truly, he was worthy of the honour of a pink coat.

To-day there are about 2,750,000 mules in the United States. The British Government purchased 80,524 for South Africa during the war, and the supply was going strong at the end.

#### MEXICO.

I may pass over Mexico with a very few remarks. From a remount supply point of view, the country cannot be considered of

any practical value to us. The equine products, Spanish in origin, are ponies of the average height of 13 to 14 hands, occasionally running up to 14.2. They are light, shelly beasts as a rule, value £5 to £10, but very hardy and good stayers. The best breeding States are Jalisco, Michoacan, and Morelos, though all along the valleys of the Sierra Madre, in Zacatecas, Durango, and Chihuahua, breeding obtains, though not with any real discretion. The Mexican cavalry are to a great extent mounted on imported United States horses of a cheap and inferior standard, and the carriage and riding horses of the better class of people are imported.

#### ARGENTINE.

Of the South American Republics, the Argentine is by far the most important, containing 4,500,000 horses. In point of numbers it is very rich and resourceful, but I am sorry to say that the reputation the Argentine horses enjoyed in the South African War was not of a savoury character, and experience of them showed that they were not equal to the vicissitudes of a campaign. Soft-hearted, incapable of effort, lacking in stamina were the common reports of them. This is disappointing, because in their own country the Criollo, or small native horses, bear a good name for endurance, going long distances without being exhausted. It is an acknowledged fact that they will canter a distance of 80 to 90 miles a day carrying a man and a recado (native saddle weighing 60 to 100 lbs.). This may be true of some, but the fact remains they did badly in South Africa, so badly indeed that purchase was suspended in October, 1900, after about 26,000 had been bought. This failure is moreover unfortunate, as the country offers a good and ready field for large numbers of animals of the mounted infantry and light cavalry stamp. Various reasons have been assigned for the failure, such as "want of acclimatisation," "lack of stamina or 'bottom,'" partly inherent, but also consequent on the heart-breaking methods of breaking-in, and an entire subsistence on a grass diet. I am strongly of opinion that the last was the cause. I do not think that any entirely grass-fed animal is fit for the active service of a campaign. And of all horses I have ever met, the Argentine is by far the slowest at taking to a grain diet. He will sulk and leave it for days. I accompanied a shipment from Buenos Aires to Durban in 1898, and I well remember the difficulty we experienced in this respect. They would eat alfalfa by the ton, but would turn their noses up at our trials of oats, bran, and maize. Another feature of the Argentine horse is that he is a very home-sick animal. Take him from his friends of his Tropilla, and you find him grieving at the change for a long time afterwards. Many of the Criollo horses are badly coloured animals, with blazed faces and four white legs—always, to my mind, indications of a soft and inferior bred animal.

The Argentine horse is essentially a riding horse, and for riding purposes he is chiefly used in his own country. He may be divided into two classes—viz., the Criollo, or native bred, and the Mestizo, or crossed bred. The former is by far the most numerous, and is the usual or common horse of the country. Out of the total number of 4,500,000, 4,000,000 are Criollo. Their height is from 13 hands to 14.3. Whole herds exist on different estancias. Geldings are the most valuable. Mares are not used for riding purposes. The latter

are usually small and mean, menadas or herds, of them running wild with an equally wild stallion, and they are only brought into corrals when the young horses are to be branded and castrated. All animals are branded with the mark of the owner, usually on the near thigh, sometimes on the neck, and often the brands are unsightly. The best and biggest are to be found in the provinces of Buenos Aires and Santa Fé, on account of better grazing grounds. They are smaller in the provinces of Cordoba, San Luis, Rioja, Tucuman, and Salta, grass being indifferent there, and many parts being mountainous. In the provinces of Entre Rios and Corrientes numbers are bred, but these provinces being low and wet, they have very flat feet, and they are not in favour in consequence.

The number purchased by the Commission from November, 1899, to October, 1900—viz., 25,932—would appear to be about the available annual supply of trained animals. They would be suitable for mounted infantry or light cavalry. If unbroken animals, or potros, were taken the supply would be much increased. The value of broken animals is from £5 to £8.

The Mestizo is the result of the foreign stallion and the Criollo mare. The main reason for the introduction of foreign blood was the desire for horses suitable for carriage work. The *haut monde* of Buenos Aires rejoice in their turn-outs, and a first-class horse is worth almost as much there as in Europe. The imported stock consists of English thoroughbreds, hunters and hackneys, Anglo-Normans, Arabs, Morgans from the United States, Trakehns, Oldenburgs, Hanoverians, Percherons, Orloffs, Clydesdales, Shires, Cleveland, and Suffolk Punches. 415,000 of the horses will now be Mestizo. Out of this a very limited number could be obtained for artillery purposes. The Commission in 1898 purchased 120 fair specimens, chiefly crossed English strains, and obtained from English *estancieros*.

Much attention has been paid to the breeding of thoroughbreds for racing purposes. The racecourse at Buenos Aires is worthy of a visit. A glance at the race-card will soon make one acquainted with the best thoroughbred strains and studs. Ormonde, it will be remembered, went to the Argentine, but was returned. Orville (son of Ormonde), Phoenix, and Whipper were other English importations. Some very useful Argentine thoroughbreds have raced in England, and previous to the war several did well at Johannesburg and other race meetings in South Africa. Speaking of Ormonde in connection with the Argentine, two of his grandsons (through Orville) were purchased as troopers by the Commission in 1898, and served in the ranks of the 7th Hussars at Maritzburg.

In concluding my remarks on the Argentine, I should like, as a humble member of the Commission of 1898, to mention the pleasant associations we had with Señor Don Manuel Quintana, now President of the Republic.

#### CHILE.

Chilian horses have a great name for hardihood. They are similar to the Argentine, but stronger-looking, better broken, and more care is taken of them. Being bred in a hilly country, they are clever in getting up and down hills. Some of them were purchased by the Argentine Commission in 1900; they travelled well to the port of Buenos Aires, a long distance, but they were mixed up with the Argentine horses and suffered in the general condemnation. The

supply would be very limited. The best are progeny of the Chilian mare with English thoroughbred hackneys and Clevelands. For driving purposes in Valparaiso and Santiago the Cleveland bay has been mostly bred and used during the last 30 years.

#### PERU.

Chile supplies Peru with horses for its Army and police. Revolutions prevent any breeding in the latter country.

#### URUGUAY.

Revolutions also interfere with breeding in Uruguay, though the country contains a fair number of hardy, small mustangs, or Criollo horses, said to be hardier than Argentines.

#### PARAGUAY.

Paraguay is not a horse-producing country.

#### BRAZIL.

Brazil is too enervating to produce anything but undersized and sluggish animals, excepting perhaps in the south near Uruguayan border. The country is of no practical good from a remount point of view.

#### BRITISH EMPIRE.

I fear that the recital of so much dry fact relating to the foregoing countries has already wearied you, but I crave your indulgence a while longer in a question that should concern us greatly, which I have purposely kept till the last, and to which I feel that wiser and more experienced heads than mine could do better justice, viz., the resources of the British Empire in horses.

Being pre-eminently, as a nation, lovers of horses, observant travellers in our dominions, and soldiers having served in our various Colonies, I assume that the majority of us here to-day are fairly well acquainted with the horses of different parts of our Empire, and that I may therefore be spared much minor detail with regard to breeds, classes, etc., and deal more fully with the more important consideration of resources and supply.

Commensurate with the other Empires and countries, we are sadly deficient in total numbers of horses. I wish particularly to emphasise this. For the whole of our Empire we have only about 8,000,000. In comparison to this I will only quote two countries, viz., Russia, with 23,000,000; the United States of America, with 17,000,000. (N.B.—The U.S.A. census of 1900 says 21,000,000.)

Our 8,000,000 are distributed as follows:—

The United Kingdom	-	-	3,000,000
Australia	-	-	1,625,000
New Zealand	-	-	287,000
India	-	-	1,343,000
Canada	-	-	1,500,000
South Africa, including Natal	-	-	250,000
Jamaica	-	-	47,000
Mauritius	-	-	12,000
Malta	-	-	8,000
Newfoundland	-	-	6,000
Ceylon	-	-	4,000
Falklands	-	-	3,000

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8,085,000

## UNITED KINGDOM.

The shortage does not relate in any way to our small United Kingdom, truly, the Mother Country in the matter of horses as well as in other affairs, where not only the horse population is very dense—about 23 to the square mile in England, 20 in Wales, 6 in Scotland, and 17 in Ireland—but where the best horses of all kinds in the world are produced, horses that are sought after by every nation in the world for breeding operations and improvement of stock. It is quite unnecessary for me to descant on the superiority of our English thoroughbreds, the excellence of our hunter half-bred stock, the magnificence of our heavy draught horses of Clydesdale, Shire and Suffolk Punch breeds, the merits of our hackneys, and the hardy races of ponies of Dartmoor, Exmoor, Wales, and Connemara. Volumes have been written about them all. I would, however, like to mention that we do not appear to know rightly the number of horses we have in the United Kingdom, or at least in Great Britain. The number, 3,000,000 quoted by me, is only approximate guesswork. I think it speaks rather badly of whatever Department is charged with the census of animals that more reliable data are not furnished. The Board of Agriculture Returns, which enumerate agricultural horses only, leaving unnoticed the horses used in commerce, trade, etc., give a total of about 2,011,000. Our Army horses number 33,172 (estimates 1903-4), and a fair computation of 955,000 for horses engaged in commerce, trade, etc., would make the approximate number up to 3,000,000.

It is in our Colonies that we are deficient in horses, not only in numbers, but to a great extent in quality, and to this our urgent attention is demanded. We require greater numbers there; we are in need of better fields of supply in times of need, enabling us in such times to be independent of other nations, or at any rate, to first draw on our own Dominions, giving them our custom.

We have had the experience of a war where, in addition to the horses of troops previously existing in South Africa, 470,000 horses were utilised. Out of this number, about 311,000 were brought over sea, having been purchased by Remount Commissions. These comprised 76,830 from the United Kingdom, 38,147 from our Colonies of Canada, Australia, New Zealand, and India, 196,807 from other countries.

Though perhaps unavoidable at the time, it seems a pity that so much of our patronage should have been bestowed on countries outside our own Dominions. Had we then given more of our custom to our Colonies we should be reaping the good results now in increased production from the stimulus given to horse industry. However, it is never too late to mend, and our past experience demands that we should put our house in order. The question is, how is this to be done? What are the steps that we should take to better our position and provide for the future? Much has been said and written about Government studs, and the costly methods of the Continental Powers have been lauded and held up to us as examples. We are much too prone to accept the view that methods in practice on the Continent are superior to our own. I venture to assert that the average British farmer will give points to any Government breeding establishment on the Continent in the matter of breeding of horses and the stock raised. Why do the Continental Powers come to us

in England and Ireland for horses if it were otherwise? Individual taste and a market are the chief factors of production, no matter in what country. Without there is a demand there is no supply. There can be no demand without there is population. Take the United States of America, for instance. Here there is a large population which is day by day increasing, not only in numbers, but in prosperity, and there is a corresponding increase in numbers of horses required for trade, agriculture, pleasure, etc. A market is thus created, and it is of no profit to breed any kind of horse but a marketable one. This fact is also well illustrated in Ireland. Here we have, roughly, 580,000 horses, and an export of 25,000 annually. We find representatives of *every* country coming to Ireland, whose horses are essentially of a riding and light draught type. A market is thus maintained, and you have supply to meet it. We hear a terrible outcry that the foreigners take the best horses out of the country, and that we ought to take steps to prevent this. I affirm this is a mistake, and I assert that they do good instead of harm by their coming; and I am of opinion that we should encourage them to come, and ask their friends to come, because they create a market, and an improving market, which will always redound to our profit and advantage. If at any future time, when there is urgent need, the horses will be there, and we will have first call.

Government can, however, do great good by supervising the breeding of horses, having in view the particular class of animal required. To me it seems that too much attention is paid to stallions and not enough to mares. This supervision is much more necessary and important in our Colonies than in our own older country.

#### CANADA.

We have in Canada a great possession, and I am sanguine as to its future as a field for supply. Everything is in its favour—cheap lands, which are essential for profitable production, an increasing population creating a demand, and prosperity, which will insure a good market. Our Canadian brothers are eager for custom, and would hail with delight and satisfaction any patronage which the Mother Country could give them, even to a small modicum per annum, for the Army. To illustrate this in a simple way, I should like to mention an incident which came under my personal notice when in Canada this year. An order had been received from the Home War Office for the purchase of a few black horses for the Household Cavalry. Visiting a small agricultural town in Ontario for this purpose, I heard a man making enquiries where he could obtain the services of a black stallion, and on being asked why he required such, he answered that he had heard the British Government were going to patronise Canada for the purchase of black horses, and he had decided to commence breeding to that end right away.

At present, however, with the enormous influx of population into the country—which this year will total at least 250,000—particularly into the north-west territory, there is a great home demand for horses, more than the country can properly meet, and large numbers are being imported from the United States. Probably 40,000 will have been imported this year, as compared to 29,000 last year, and 18,000 the year before.



This is a sign of good times. It is only to be hoped that for the future general stock of the country, care will be exercised in the selection of mares for breeding purposes. The standard of suitability of the sires can be relied on. At the same time, if the call came, Canada would always find ways and means of furnishing us with a fairly good number of horses, whether in peace time or in war.

During the Boer War, 14,611 horses were drawn out of Canada by the Remount Commission. It would be difficult to obtain the same numbers on emergency at the present time. One competent authority estimates the supply of good suitable horses for Army purposes at 2,000 per annum, the chief number being obtained from Eastern Canada. However, if the North-West and British Columbia were exploited, I am confident this number could be increased. The type of horses in Canada has considerably changed within recent years, especially those of the North-West. An agricultural type is now in greater demand, and horses suitable for the riding branches of the Army are not so readily obtainable.

The advantages of the contiguity of the United States to Canada, moreover, must not be overlooked. This enhances the value of the latter as a base for remount operations in case of a very pressing demand, particularly as regards the mule, which Canada has not got.

Furthermore, in the event of war, whether in Asia, Europe, or South Africa, the country is not inconveniently placed. Every facility for shipment east or west exists, and trans-continental transportation is easily effected.

#### AUSTRALIA.

It is much to be regretted that the reports on the Australian horses during the war were so disappointing. We expected better results, considering the character they bore as remounts in India, and especially as they were Southern clime animals. The shipments at the commencement of the war were satisfactory, but towards the end, when the work to be done was much more severe, they were found wanting, and were the subject of much adverse criticism. Apparently the good stock of the country had been exhausted, and the supply was, in later times, drawn from inferior productions. It is feared, and it is greatly to be deplored, that the quality of horses generally has much deteriorated during the past few years. The attention of landowners is directed to the much more paying industries of sheep and cattle raising. There is no money in horse-breeding, the demand is small, and consequently there is a decay of production, especially with regard to useful horses. Racing is much in vogue, and the breeding of swift thoroughbreds for short, fast races is resulting in the production of many weedy animals, having a bad influence on the future stock of the country.

I am certain that all of us who have served in India and cultivated there a liking for our friend "the Waler," were grieved at the bad reports on him in South Africa. Personally, I have the greatest love for Australian horses; I was much associated with them during the six years of my service in India, and I have no hesitation in saying that the horses of the Horse Artillery there are second to none in the world—at least, this was so in the nineties, when I knew them. I may say the same of the medium cavalry and horses of the charger and hunter type to be found in the private market, the latter always



being worth 1,000 to 1,200 rupees. I should like to say so much and more in defence of Australian horses. I trust that the falling off in standard and the condition of the horse industry generally is not so serious as has been reported, and if it is so, that the stimulus which the requirements of the Boer War no doubt created will be productive of good results, that closer attention will be devoted to useful-looking animals, and that all nondescripts will go to the wall. We cannot afford to allow so good a field of supply to lapse, or to suffer one so conveniently placed to India and the Eastern portions of Asia to fall into disuse. I look upon it as fortunate that the country has in India so good a customer in normal times for both private and public horses. A depreciation in its annual custom—which amounts to about 6,000 animals—would have a serious effect on Australia.

The order towards the end of the war for small, compact horses from Australia and the failure to find such was rather interesting. The general run of horses of the country, at least in Victoria, New South Wales, and Queensland where the best horses are bred, are of the tall order; small horses are very much in the minority, and I think the name given to the latter when purchased in India for native cavalry regiments for 350 rupees, aptly describes them, viz., "Bounders." We all understand the term.

It was unfortunate that during the war Australia was suffering from a very severe drought, probably the worst ever experienced. Large numbers of horses were rejected on account of bad condition, and even in those purchased the condition was not satisfactory. However, we may put down the following as the capabilities of supply of horses suitable for military purposes of all kinds—ages five to nine, and broken:—

800 per month from New South Wales.  
400 per month from Victoria.  
750 per month from Queensland.  
500 in two months from South Australia.  
700 in four months from Western Australia.  
450 to 500 in two months from New Zealand.

#### NEW ZEALAND.

The horses of New Zealand resemble English horses, and they are generally nicely broken, but the numbers available are not great.

In concluding my remarks on Australia and New Zealand, I should like to mention a fact which I consider of great importance with regard to Army supply. There are certain men who have had the experience of many years' shipping horses to India, most of whom have had to buy this experience dearly. These men should always be utilised. They know Army requirements to a nicety, and can usually submit horses for inspection in India without many rejections. New men coming into the trade invariably have horses left on their hands as unsuitable, and so lose money.

#### INDIA.

A few paragraphs back I remarked that it was fortunate that Australia had in India a good customer, and that a withdrawal of this custom would have a detrimental effect on the horse-breeding

interests of the former country. I particularly ask you to consider this in the light of the horse-breeding operations in India. These operations, which were commenced in 1876, on the abolition of the old Stud Department, have sought for the ultimate object the production of animals of sufficient size and substance to meet the requirements of the Army in India, not only for cavalry, but artillery, and to render that Army independent of foreign markets. Time will not admit of my entering into any description of these operations, very commendable in themselves, and it would ill become me to comment on the controversy and divergence of opinion expressed relative to the merits or otherwise of the English and Australian thoroughbred, Arab, hackney, and Norfolk trotter sires used for the grading up of the native stock. The object has not been achieved, and the artillery horse, the *raison d'être* of the Norfolk trotter, has not been forthcoming. India will produce horses readily enough, but the climate and conditions of life militate against size and substance. It lacks the green grass and grazing necessary to grow sizeable stock, and the introduction of coarse strains of horses for breeding purposes only makes matters worse. We do well enough to rest content with the excellent pasture lands of Australia for our Indian Army supply of artillery horses. The best of the stock raised in the country under the Horse-Breeding Department is taken at a young age into the remount rearing depôts for better care and feeding till fit for issue to regiments; about a thousand per annum are thus obtained. Certain native cavalry regiments have their own studs: the 11th Lancers, for instance, have been very successful in breeding their own remounts.

The attractive prices given for polo and racing ponies has resulted in production towards this end. The general purpose animal is a pony, and the majority of the animals of the country are of this class. It is satisfactory to note that some of the old breeds, such as the Beloochi and the Kattiawar, are being revived, and we must not forget the sturdy, hardy, small Burmese ponies, to improve which by any foreign importation would be absurd. The resuscitation of these hardy breeds of small horses, and the encouragement given to their production to better type, is certainly a step in the right direction. The more useful animals we can stock the country with the better, and to this general end the horse-breeding operations cannot fail to be conducive to great good. In any war in India it will be found that the animals bred in the country, no matter of what size and substance, will stand the vicissitudes of a campaign much better than imported material. It can never be said of India that it is a country in which foreign animals quickly acclimatise. The enervating influences of climate are against this. So let us take care of our native and country-bred stock and grade it up to a better standard generally, in view of the greatest possible supply in time of necessity. Even the Gharry and Ekka ponies and the grasscutters' tats should not be overlooked. Frontier warfare would require a large amount of pack and light draught transport, and the small animals are the best to perform this, be they ponies or mules.

The Indian Army in times of peace requires nearly 3,000 remounts. These are furnished from country-bred stock and importations from Australia, Arabia, and Persia, light cavalry being mounted on country-breds and Arabs, medium cavalry on Australians, and the

artillery being horsed by Australians. In times of active service, the country, with its  $1\frac{1}{2}$  millions, supplemented by the more easily acclimatised Arab and Persian horses, would be equal to the mounted branches of the Service. Broken horses of a mature age from Australia would supply the wastage in Horse and Field Artillery, and early purchasing could be so arranged to admit of a reasonable time for acclimatisation. A good number as a reserve is usually maintained in *dépôts*, and this would be first drawn on. The large livery stables in Calcutta, Bombay, and Madras would also be in a position to furnish a few. The experience of one war in regard to required numbers and classes of horses is no criterion for the next, and it is very improbable that any war in and around India would result in the vast wastage of horseflesh that was experienced in South Africa during the Boer War, at least, in regard to riding classes.

#### SOUTH AFRICA.

This brings me now to the consideration of South Africa. The war left the whole country in a very denuded state. Previous to hostilities there were 387,000 horses in Cape Colony alone, 54,000 in Natal, and a very considerable number in the Free State and Transvaal, chiefly of a light cavalry, mounted infantry, and light draught type, excellent small animals that withstood the hardships of the campaign better by far than any other horses. The mortality in horses during the war, I may mention, is roughly estimated at about 340,000. To-day probably 250,000 will cover the total number in all the States, but we have left as a legacy the chance of the world in establishing a race or races of horses, an opportunity the like of which has never before been presented to any country, and which now rests in the hands of administrators to make or mar. It is a case of beginning again, but the beginning is replete with great possibilities. With a foundation stock drawn from the best countries in the world, and a country pre-eminently suited in climate and soil for the raising of good, healthy, hardy animals of any type, I cannot imagine a fairer promise. It is to be hoped that future prosperity will mature this promise, bringing success to the horse-raising industry, and that in time our dominions in South Africa will show us in horses an asset of Empire, the real value of which can best be appreciated when there is a call to arms.

I trust that it will not be thought for one moment that I hold a brief for the colonies, and favour them in preference to our home markets. The major portion of the mounted branches of our standing Army being located at home, the demand in time of peace—viz., about 3,000 per annum—can readily be supplied locally—Ireland for cavalry horses chiefly, and England and Scotland for draught purposes, but for active service abroad we must go further afield.

#### REGISTRATION.

To meet the immediate requirements on mobilisation we have registration of 20,000 trained horses of different kinds at 10s. per horse per annum, most of which number belong to the large commercial firms in London. There is a diversity of opinion as to whether this registration is worth the cost, and whether, by offering a good price when mobilisation is required, horses could be obtained from large firms just as easily without resorting to the enormous expendi-

ture entailed in registration. In any case, there would appear to be necessity for modification. It is possible that registration might be made general throughout both Great Britain and Ireland, that it might be done through county and municipal authorities in conjunction with officers appointed by each army corps or command. This registration would show classification as to suitability for each branch of the Service as far as possible, and it need not interfere with the floating horse population of export, sales, etc. By this means also contagious diseases in horses would be kept in good control, if not eradicated altogether. Needless to say, no retaining fee for registration would be paid, but the alternative of a good price could be relied on to induce owners to sell when mobilisation was required. The main thing is to know where the horses are.

In bringing this lecture to a close I fear I have left unsaid things that I might have said, and that I have been very indefinite on many points, but I found as time went on my notes were getting very voluminous, and that I must either abridge them or begin again on narrower lines, avoiding technicalities. I chose the former, but I trust my shortcomings will be overlooked, and that any important omissions will be supplied by discussion.

Sir, I thank you for the honour you have conferred on me by taking the Chair; and, gentlemen, I also thank you for the kindness and patience of your attention.

Major-General F. W. BENSON, C.B. (Director of Transport and Remounts):—In opening this discussion, I will not take up your time, as it is getting late in the evening, and there is hardly time to enter into the discussion of the merits and demerits of the various classes of horses which Major Moore has mentioned in his lecture. I should like only to draw attention to the fact that I am afraid I ought not to draw conclusions from the experience of the South African War, as regards the horses that were in use there. As you know, there were so many factors at work, such as the change of climate, change of food, the rapidity with which they were turned into the field, the want of horse management, and other matters, which render it very difficult to come to a judgment regarding the horses. That is to say, it would be unfair on the countries from which we were obliged to draw our supplies if we jump at a conclusion founded only on the experience of that war. I observed in the *Times* that there was an article on "The Transport of the Japanese Army," and I read that article with great care. The subject was mentioned the other day in a lecture, and reference was made to the type of transport animal used by the Japanese. It was rather hinted that we ought to take a lesson from these wonderfully small and curiously shaped, ugly animals, which were used there. When I read that article, I did not come to that conclusion at all. The article did not say very much about the type of the animal; what it did say, was the manner in which the Japanese used them, and that is the lesson for us. Instead of asking the pony to do half as much again as he could do, they asked him to do only half what he could do, and the result has been that this little animal has worked in the wonderful way in which it has. I think, if we would reduce our loads both on top and behind the horse we should get a great deal more out of the average horse than we do at present. It is not to be expected of any animal, however good he may be in the hunting field or anywhere else, that if he is over-

weighted, or has too heavy a load behind him, he can show all that is in him. Our wastage would have been very much less, I am certain, had there been more care taken in the management of the horse himself. I endorse what Major Moore has said about Canada, as I am in a position to know something about that country, being a Canadian myself; but we must always remember when we are dealing with our colonies that we must be fair, and, as far as possible, just to them all, and also be just to our own breeders at home in Great Britain and Ireland. However, there is no doubt about it, that Canada offers a very excellent market for the future, and it is to Canada we shall have to turn for a great proportion of our horse supply in case of emergency. I hope that the time is not very far distant when we may hold out some practical encouragement to Canada in the way of some sort of annual supply, if possible, whatever it may be, and perhaps we may do the same for our other colonies.

Colonel P. H. H. MASSY (Reserve of Officers, late 6th Dragoon Guards):—I must apologise for saying anything, having been so long separated from our home service, employed abroad, but still, I think I may add a few words. First of all I may allude to the fact that the Duke of Devonshire, speaking two days ago at the Bakewell Farmers' Club, mentioned that our light horses were not what they were expected to be; they had not improved at all of late years. I think our Government should do something to improve horse-breeding, by taking the matter up. Major Moore, in his admirable lecture, has pointed out to us that in nearly every other country in the world the Government takes up this question, and, if not entirely taking the matter out of the farmer's hands, at least assists him. This might be done in Ireland and South Africa, especially. In Ireland we have an admirable horse breeding country. We might, I think, have a system of Government stallions serving approved mares, which would entirely meet with Major Moore's notion of selected mares, at very low fees, and then we might have remount depôts to which the young stock, on being bought, might be sent. Instead of being purchased, as now, at four or five years, they might be obtained as three-year-olds, and put into depôts, being taken in hand at four years and trained gradually, and sent to corps at five years. They would then have got over their strangles, and would not cause the trouble they do now, or take up the same time in training them on joining units. The horse would be proportionately cheap at the younger age. The Government would, of course, have to take a certain amount of risk, but they would get the horse much cheaper, and have a considerably larger stock to choose from, as these horses would not, at that age, have come under the eye of the foreigner, who is a great buyer of horses. I think if this system were adopted, the chief thing would be to carry it out on a very economical scale. Very often we do things on a large scale, building large barracks, for instance, and then finding that the system does not answer we have to throw it up. It would be better to have only light stabling or sheds, to turn young horses into. Land in the west of Ireland and South Africa might be used, where it can be purchased very cheaply, where we could turn young stock out, and bring them in during the last year. I have visited Government studs in Hungary, and it is a very interesting study. Any officer who takes an interest in the question would do well to take a run over to Hungary, and when he arrives there the officers in charge will be only too happy to show him the Government studs, which are carried on at

comparatively very little expenditure. The system has been explained by Major Moore. In Bulgaria, where I now am, a great deal has been done by the Government, and I should think the horses of that country have been improved a hundred per cent. When Turkey left Bulgaria some 26 years ago, the horses were very poor. The Bulgarians have now bought stallions, and have got good mares into their studs, and they turn out these mares, selling them rather cheaply, putting stallions at certain centres during the covering season, and the whole breed of horses in Bulgaria has considerably improved. As to the purchasing of horses abroad, as Major Moore says, the local agent is generally the best man to employ under proper supervision. If one sends out a man from home who does not understand the country or its language, he very often buys worthless beasts at an expensive rate, as we did in Hungary during our war. The local Government will always assist when you are buying in a foreign country, and it would be best, I should think, to put oneself in their hands. The Hungarian horse, which, I think, was not so very successful in South Africa, is an excellent animal in Hungary itself, where you can get for £10, what we bought, I fancy, at about £30 during the war. In conclusion, I would advocate buying horses younger than we do now, turning them into cheaply-built remount depôts, having a certain number of stallions at low fees to encourage horse-breeding, and before young horses are sent to corps allowing their strangles to be over, and giving them a partial training, for which latter duty Reserve men might be employed. I should say nobody is more competent to deal with this question than our present Quartermaster-General, an acknowledged horsemaster and rider. With regard to Major-General Benson's remarks as to the weight carried by our troop horses being excessive, in which I quite concur, that light carts might be used so as to take the weight of a heavy kit off the horse's back, and something in that way I think should be done.

Mr. W. S. SPARK :—I have listened with the very greatest interest to the paper read by Major Moore. I had the pleasure of meeting Major Moore and Colonel Lawley in Toronto, when they were there on the very business you have heard him speaking about, and I am pleased to find that he speaks well of the Canadian horses, and that he thinks some encouragement might be given to that colony in future by the authorities at home. He has also spoken of the foreigner coming here and buying your horses, and he says that he welcomes the foreigner. I am sorry to say on this point that I entirely disagree with him, for this reason, that the foreigner will not take your geldings. He takes your best mares, and at every fair—I have known it for years—the foreigner comes and picks the best mares, and that is one of the reasons why your farmer is not breeding so many horses as he used to in olden times. We have felt this in Canada. You see here in London the best class of horse in any numbers that is to be seen in the world, and that is the London General Omnibus Company's horses. We have felt in Canada that there are a great many of them bred by us, and the people in the States come to buy as well in order to sell to the General Omnibus Company. I have told our farmers over and over again, "Keep your mares and sell them your geldings." We are suffering now from that very thing, that the foreigner has come and taken our mares. There is a very great deal more in that than meets the eye at the moment. It is the future you have to look to, and without good mares, as Major Moore has said, you cannot possibly get good animals. We have plenty of good stallions.



With regard to the encouragement he speaks of, that might be given to Canada, I was very pleased to hear from Major-General Benson's lips that there is just a possibility that some encouragement might be given. Gentlemen, we are waiting for that encouragement. We have been waiting for that encouragement for some time. We have a million and a half horses in Canada, and I venture to say that the great majority of those horses are sound. That is a great thing to say. We do not get many curbs, side bones, spavins, and very few splints. There is another thing in Canada which perhaps Major Moore may have noticed when there, namely, that it is very seldom indeed that you see a broken-kneed horse. I do not think there is an average of two in a thousand. You could not find that here. That shows you that the horse has been accustomed as a young horse to look out for itself over rough ground, and he is very hearty and sound. Well, gentlemen, if you can possibly see your way, through the influence you have here at home, to encourage our breeding, do so. We want to breed you what you want. When we come to England to buy machinery they say to us:—"Now, this has been in use for 20 years; it is good enough for us and it is good enough for you." Gentlemen, it is not. We are willing to pay for what we want. We want to provide you with the animals you want, and if you will give us a chance by giving us an order, say, for 5,000 horses, spread over a period of ten years, we will try and breed to any type you may select. I know that the ranches are really anxious to breed to the Army type of horse, but they want some guarantee, naturally, that some of those horses will be purchased for the Army. They bred these before, but they have not found buyers of the Army come over for them. Certain men have come to buy horses that you were to pay 175 dollars for, and they wanted to buy these horses at 75 dollars, and there were ten men getting 10 dollars apiece out of them. We do not want to do that trade. We want to give you value for your money, and if you will encourage us by putting such an order in the hands of the Government a qualified man will be found to buy the very animals you want, and in order to pay his salary—I put it very plainly here—we will buy those horses at 7 dollars a head less than we charge you for them. That is the only commission that will come out of the deal at all, and I do not think His Majesty's Government would object to that so long as they know we are honest. I do not want to see a horse that is purchased for 75 dollars charged to you at 175 dollars. It is detrimental to the interest of the breeder; it is detrimental to the continuation of that confidence that you have placed in us. I can only hope that you will give us some encouragement in Canada, and we will do our utmost to provide you with the right class of animal.

Colonel J. A. NUNN, C.I.E., D.S.O., A.V.D. :—Speaking about Japan, Major Moore mentioned that it was not quite known, except the Corea, where the ponies were brought from. When I was in Japan there was a very considerable trade done with ponies from Timur in the Malay Archipelago. I will not delay you talking about them, but I may mention that there is a very good description of the Timur pony in Wallace's "Malay Archipelago." A detachment of Japanese police that I saw at a place in the mountains were entirely mounted on them. They were hardy and rough little animals, and went very well. There were a large number of Corean ponies brought into the country that were used in carrying enormous loads over very rough roads. Major Moore mentioned that the barb in Algeria was only fit for mounted infantry purposes. It is some



time ago since I was there, but when I was, the Chasseurs d'Afrique were entirely mounted on them. The Hungarian horse has been crabbled all round in the South African War. I was not in the war myself, but some twenty years ago I owned a Hungarian, and he was as good a horse as ever looked through a collar. However, he was well fed and well looked after. My opinion is that the crabbing of the Hungarian horse in South Africa had more to do with the want of condition than anything else. A speaker has mentioned about foreigners coming over and buying mares, and it has been also mentioned that in the breeding of horses too much attention is devoted to the stallions and not enough to mares. For some years I was in charge of the horse-breeding operations in India, and there was an idea that any mare would do. I never believed in it myself, but I was acting under official orders and did what I was told. I always knew it was wrong, and I think time has shown I was right. With regard to mares in Ireland, I can quite confirm what has been said. Long before I entered the Army I bred horses there myself, as I have the misfortune to be an Irish land-owner. I was not patriotic enough to keep them, and I sold them to the foreigners because they paid a better price for them than anyone else, and I have sold many a one to Germans and Austrians. There is one remark I would make, and I do not do it in any carping spirit. Major Moore has given a large list of figures. I presume the ones relating to foreign countries and horse supply were only for comparative purposes, because, in the event of this country being engaged in a serious European war, it seems to me that horses would be contraband, and those markets would be closed. Regarding other parts of the world, my experience is that figures and statistics obtained about animals from Government sources and Blue Books are utterly unreliable. I have been on several expeditions of this sort, sent off to make inquiries about horses and cattle. I have had statistics put into my hands, but when I arrived on the spot I found they were no use at all. As a rule, instructions come from the central Government, and some person, a consul or magistrate, is told to send in an estimate of the number of horses fit for mounted infantry, carriage purposes, etc., also of bullocks for beef, cows for milk, and such like. He, in most cases, has no more idea what they are than the man in the moon, and if he had he is generally too busy to be able to do it, and the work is deputed to some subordinate, who usually does what he thinks pleases his employer.

Lieut.-Colonel W. C. Underwood (late 4th Hussars):—In the summer of 1891 I spent two months at Tarbes, the depôt of the cavalry belonging to the district of the Hautes Pyrénées. At that time a system was established of lending selected trooper mares to farmers and breeders from the ranks after the age of 14, conditionally, that they should be put to Government stallions (whose services were granted free) and the foals to be sold as three-year-olds at a fixed price to the Remount Department. At the end of three years these mares become the property of the farmer or breeder, and he is at liberty to sell any further foals at his own price. The mares are examined by the veterinary surgeon of the district half-yearly, to see that they are well fed and treated and not overworked. I was informed that the plan was a success, and had materially improved the breed of horses in the Department. Why should a similar plan not be tried in Great Britain? In a preliminary trial, preferably in Ireland, little or no expense need be incurred. In these days, when so much is being talked about the encouragement of the depressed agricultural industry, here is an opportunity for the Government to do so, while improving the breed of horses, increasing the reserve, and obtaining young

remounts at a lower price. With regard to the colonies, if the authorities adopted the Cossack system in Canada or South Africa a large number of remounts might be obtained. A Blue Book was published in 1894 by the German Intelligence Department, and translated by Captain Napier, of the Indian Army, entitled: "The Cossack Armies." A copy of this work is in the library of this Institution. From this book it appears that by assisting the Cossack colonists of the Ural no less than 60,000 Kalmuck horses are annually bred and sold to the Russian Government for troopers at £12 10s. each as three-year-olds. Gifts of land, free use of stallions, and in some cases money grants, are made. If some of our Reservists were placed on lands in Canada (and I am officially informed by Mr. Preston, the Canadian agent here, that the Canadian Government have made an offer to our Government of free grants of land) a large supply of troopers might be obtained as a reserve in time of war, while in peace time these settlers might be trained as the Cossacks are, forming an invaluable force to assist in the defence of the Empire. The Russians by this means obtain *almost free of cost* a force of 500,000 men fully equipped from their Cossack colonies. All these facts are set out in the book to which I have referred. It may be interesting to mention that from information supplied to me by Major-General Heming, late Military Attaché in Japan, the Japanese are forming military colonies and breeding establishments in Yedo, the northern island. This probably accounts for the fact, which Major Moore mentions, that from Yezo the largest number of remounts in Japan are obtained. Quite apart from the advantage which this plan would be for increasing our supply of horses to an almost indefinite extent, it would largely help to solve the problem of consolidating the Empire by supplying a large body of loyal British colonists.

Major J. MOORE, A.V.D., in reply, said:—I have not very much to say in answer to the discussion. I know that the figures are not very reliable, but one must go on something. For instance, in the United States of America I have put down 17,000,000 horses, but their own Department of Agriculture returns gave 21,000,000. It is really one State competing against another in that case to see which has the most animals. When I was in Mexico this year I had some of their returns, but they were hopelessly wrong. Still, I think that figures on the Continent may be relied upon. With reference to Japan, I mentioned in my lecture that it was not known where she drew her supplies from. I think I might have said a little differently from that, because I knew while I was in Canada that the Japanese were reported to have sent over an order for 5,000 horses to a man in British Columbia, but it was only a rumour.

Mr. SPARK:—That order never came.

Major MOORE:—I knew that during the China War they had horses from Australia—in fact, they are customers of Australia. A remark was made by Colonel Massy with regard to three-year-olds. As a veterinary surgeon I say "No" to that. No animals go sick so much and go to pieces as the three-year-olds. The sickness and mortality are very heavy.

The CHAIRMAN (Major-General H. C. O. Plumer, C.B., Quartermaster-General):—As no one else has anything to say as regards this discussion, I am sure I shall be carrying out your wishes if I move a vote of thanks to the lecturer for his very able paper. Of course, time on these occasions is always limited, and we cannot get a very interesting and able paper

read and a very long discussion; but I am rather sorry we did not get a little more discussion on this paper from what we may call outsiders, not in any offensive way, but using the term to denote people not officially concerned with the Remount or Veterinary Departments. I think one of the benefits of the lectures at this Institution is for us, who are officials for the time being, to hear what is thought and said by those who are outside, and a little criticism, so long as it is not too severe, is very good for us all. I am sure that all the facts and figures collected by Major Moore and read by him in this paper are not only of very great interest to all of us who have had the pleasure of listening to it, but will be really of permanent value to the Army. He has drawn your attention very clearly, as regards foreign countries, to the sums they spend annually on improving their horse-breeding and organising their horse resources for war. I think a little study of the amount of money spent in those countries will be very instructive compared with the money which is voted by Parliament for our own purposes. He has described us, very rightly perhaps, as being the nation that has not only the greatest love for but the greatest knowledge of horses. To a certain extent I hope that is so; it certainly was so fifty years ago. But I think we are apt to be a little self-complacent in that way. I heard a critic say that as a nation the English talked more and knew less about horses than any other. I do not think that is fair, but still I do think we must remember that we are rather inclined to sit still while other nations are devoting a great deal of their time, a great deal of their money, and a great deal of their resources towards studying horses, and especially horses for war. We must all agree that in war our colonies must be our first line of supply, and it is for us to create in peace time an organisation which will enable our colonies to meet our requirements in war. Mr. Spark made some very interesting remarks about Canada. Of course, he does not expect me, I know, as Quartermaster-General, to answer him in this room. General Benson has indicated clearly that we are very anxious to give encouragement to Canada and the other colonies. It is not much good giving encouragement if it is only of a verbal or paper character. What is wanted is practical encouragement, and that means expenditure of money. I can say this much, that the subject is receiving from General Benson and myself, and all who are working at it, very serious consideration, and that we approach it in the most sympathetic spirit. The difficulties we have to contend with with regard to the supply of horses for war is the variety of theatres of war for which we have to prepare. Horses will be almost certainly required to serve under active service conditions, which are most arduous, in countries in which they are not accustomed to live, and, as one or two of the speakers have pointed out very truly, one of the sources of our great wastage in South Africa lay in the fact that we had to use horses before they could be acclimatised. We are now studying, and I think really studying (especially General Benson and the officers of the Remount Department), the question of what horses can be best acclimatised for service in different countries, and under what conditions. The lecturer has spoken of Canada, and Mr. Spark has told us a great deal about its resources and what they can do. Major Moore has spoken in very optimistic terms of the horses he found there, and which can be supplied. I should like to take this opportunity of saying that there is probably no one better able to speak on that subject than Major Moore himself. He has visited the country lately, and in conjunction with Colonel Lawley, he has sent in a most valuable report. With regard to Australia, I do not think there is any fear of that country

being neglected. It is to Australia that India must necessarily turn. Major Moore has spoken of what India is doing in breeding horses. I think, without claiming for a moment any expert knowledge, there can be no question that when horse-breeding is carried out in tropical climates like India, it is always the fact that in two or three generations there is a loss of bone and substance, and it is almost an impossibility for a tropical country like India to keep up the supply of draught horses. For the supply of that class of horse, and for the horse required for the British cavalry, I do not think there is any doubt but that India will have to turn to Australia and New Zealand, and therefore those countries have really what may be called a perfectly certain market for them. As regards South Africa, Major Moore has very rightly pointed out that that country has now a most exceptional opportunity of turning itself into one of the finest horse markets of the world. Most of us know what South Africa has been and what South Africa is, and it all depends now on what the administrators are able to do as to whether the value of the horses they turn out are not considerably enhanced. I happen to know that the matter is being taken up very seriously and very practically. In the Orange River Colony, Sir Hamilton Gould Adams has been in correspondence with us, and he has already taken out a large number of stallions with the view to using them scientifically for breeding for Army purposes. I am quite certain that with all the natural advantages South Africa possesses the result cannot but be successful. We feel that in the future we must look very greatly to South Africa, from its geographical position, for supplying us in the case of certain eventualities. I will not detain you any longer, but in moving a vote of thanks to Major Moore for his admirable lecture I should just like to say in conclusion that personally I owe a deep debt of gratitude to him. He was my veterinary officer in the early part of the war, when we were operating in a part of the country where it was not easy to get horses, and having got them there was very little reinforcement to fall back upon. I think I am not far out in saying that after a year of pretty hard campaigning we handed over to the Remount Department something like 30 per cent. of our original horses fit to go on for many months, and that, in my opinion, was due entirely to the care and attention Major Moore devoted to them.

## WITH THE JAPANESE ON THE YALU.

*By Mr. W. KIRTON, late Special Correspondent with the Japanese Army for the "Central News" and the "Graphic."*

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Thursday, 15th December, 1904.

General Lord CHELMSFORD, G.C.B., G.C.V.O., in the Chair.

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[The Lecture was illustrated by a large number of interesting photographic slides and sketches, taken by the Author.]

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IT is with considerable diffidence that I come here this afternoon to give you a lecture. I am not a professional soldier, and I hope that if during my talk I make any technical errors you will forgive me. I look upon it as a matter of duty—in that I was one of those few privileged Englishmen who were able to see the battle of the Yalu—to come and tell you about it. I will endeavour not only to tell you something about that action, but also describe some of the details of the Japanese organisation, which have enabled them to so effectively combat their very strong opponents.

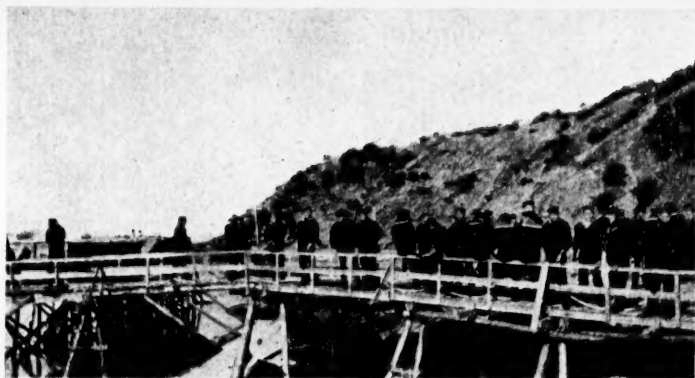
You will all remember that the initiation of the campaign was constituted by the landing of the Japanese Army at Chemulpo, the port of the capital of the kingdom of Korea, Seoul. After certain small actions and skirmishes had been fought, we know the enemy was driven back through the cities of Ping-Yang and Anju, and a landing was again effected at the port of Chenampo, where the First Japanese Army established its base. Then an advance took place through the northern portion of the kingdom of Korea, and the battle of the Yalu was fought, thus clearing the country north of Chenampo.

When we are considering any question like this which involves a knowledge or use of geography, it is always advisable in the first place to refresh our memories by looking at a map, and the map which I exhibit shows you, amongst other things, the kingdom of Korea. I would like to point out Chemulpo, the port of Seoul; Chenampo, situated at the mouth of the Pin-Yang inlet; and the frontier of Korea, formed by the River Yalu, with the great port of Antung at its mouth. These three ports successively formed the bases of the First Japanese Army. When the country was cleared north of Seoul, Chemulpo was abandoned as a base, and a base was provided for at Chenampo. Then, after the passage of the Yalu, Chenampo was abandoned and the base was established at Antung. Here, of course, is a great lesson, not only to us but to everybody, as to the

value of the command of the sea. The Japanese found it practicable to establish a base of supply for their armies at any point on the coast which suited them. When the Japanese Army landed at Chenampo I was able to be present at the landing of a certain portion of the forces, and in connection with my idea of giving you some indication of the details of the way the Japanese do things, I now show you a view indicating their method of landing the troops. The men and stores are landed in sampans, which are boats peculiar to that part of the world; they are very heavily constructed to resist the strong currents of the Bay of Korea and the Yellow Sea. They can either be towed, as you see they are being towed by some launches in the view, or they can be sailed with their sails, which are sometimes made of grass mats, or propelled with curious sweeps, similar to those used by the Venetian gondolier. They are very efficient in every way for the work they are required to do. There is a large rise and fall of tide on that coast (some 30 feet) which necessitated some provision being made for the landing of troops and munitions of war, and the Japanese engineers and Bluejackets who were employed provided for those requirements by constructing a series of timber piers. We all know that the Japanese are remarkably good timber workers; they are celebrated throughout the world for their timber work; and their smartness in carrying this out is illustrated by the fact that it occupied the men from the ships and the engineers a period of only  $6\frac{1}{2}$  to 7 hours to erect a landing stage of the description shown in the view (1). Then it was necessary to make provision for the transport of supplies northward, and as the roads of Korea are extremely difficult—mostly mountainous paths and mud roads through the great paddy fields and tracks of that description—the majority of supplies and munitions of war had to be carried on the backs of men and animals. Large gangs of Korean coolies were therefore engaged by the Japanese Army to supplement their own coolie corps system. The view exhibited shows a group of Korean coolies waiting to take up their loads. I believe these men are the most remarkable porters in the world. They have been known to carry a load of 200 lbs. on their backs day after day for some considerable distance without breaking down. The Japanese found difficulty in identifying the members of these gangs of coolies; they are all remarkably alike, as you notice. So they hit on this simple plan: They told off an orderly to mark each man on the cheek with a certain figure, so that at the end of the day the man in charge of the gang of coolies would know whom he had to pay.

To illustrate my remarks with regard to the roads and tracks in that part of the world, I show you a view of the great Pekin Road, with the coolies on the march carrying supplies on the backs of little bullocks or bulls. They are wonderful little animals, and have been known to carry 600 lbs. or 700 lbs. weight on their backs day after day. The Great Pekin Road is one of the greatest frauds in that part of the world. It is marked on large scale maps as a great highway. It runs from Seoul across the River Yalu at Wiju, then through Liao-yang, thence on to Pekin itself. When I saw that road marked on the plan I thought I should see a magnificent highway; when I came to it and found it was a track about 15 feet wide in its best part, and 18 inches deep in mud (more or less—generally more, I am afraid), I was considerably disappointed. That illustrates the

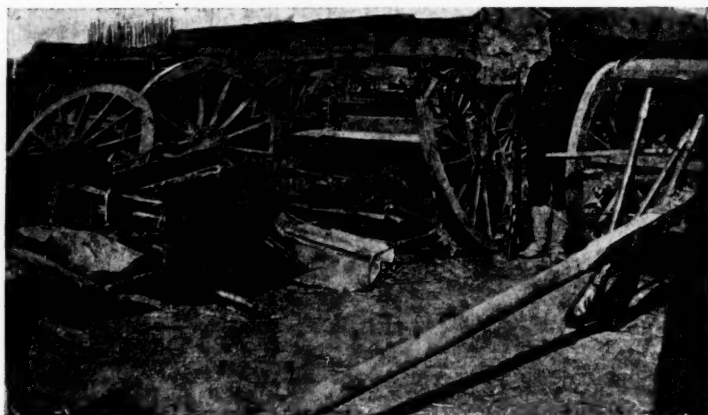




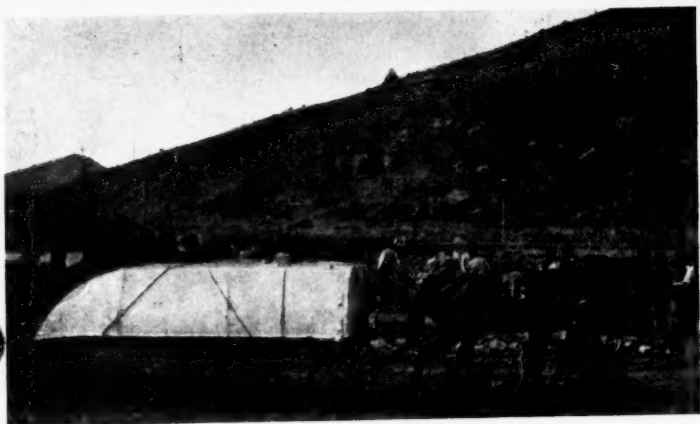
1.—LANDING STAGE ERECTED BY JAPANESE ENGINEERS AND BLUEJACKETS  
IN FROM 6½ TO 8 HOURS.



2.—SCREENS MASKING JAPANESE MOVEMENTS ON THE YALU.



3.—EFFECT OF 40-POUNDER COMMON SHELL ON RUSSIAN GUN CARRIAGE  
AND LIMBER.



4.—JAPANESE PONTOON.



5.—JAPANESE COOLIE CORPS TRANSPORT.



BRINGING UP AMMUNITION.

difficulty of transport with which the Japanese Army were confronted in their movements in Northern Korea.

Ultimately I approached the banks of the River Yalu. For several miles before I arrived at that river the roads on either side were fenced off by screens of the description shown in the view (2), and which in some parts overhung the road. They were made out of boughs or trunks of small trees, branches with the foliage still left on them, corn stalks, and grass mats, the whole being tied in position and stayed by grass ropes. Certain parts of the road which ran across open spaces were completely fenced off by these extraordinary screens, which extended for some seven or eight miles south of Wiju City. On thinking what these things were erected for, it was very easy to see that they were put into position to mask, or hide, the movements of the troops of the Japanese Army generally, and they were most effective in this way. At every spot which might come under the observation of the enemy on the other side of the river these screens were erected. The pioneers built them during the night. Then when the advance was made good the next day, they were carried on again during the ensuing night, and so on until the City of Wiju had been reached. An elaboration of the idea was seen as we came down a hill facing the Russian position on the other side of the river, in the immediate vicinity of Wiju. The view I show is only a sketch. I may here say that the photographs and sketches that I show you this afternoon are my own. The road shown in the sketch descended a steep hill of this description, and was constructed down the face of the hill between banks, and over this road a series of arches had been erected. Several times I viewed the passage of troops down the face of the hill, and in no instance when at a distance of some 300 or 400 yards could I see any movement of troops, although I knew that men were descending at the time. As the Russian position was from some five to six miles away, I put it to you that it would be impossible for them to view these men, even if they were assisted by the most powerful telescopes known, when it was impossible for me to see them at a distance of 300 or 400 yards. This system of masking the movements of the Japanese Army enabled General Kuroki, in command of the First Army, to concentrate the whole of his three divisions in the vicinity of Wiju without anybody being aware of the strength of the force at his command. Another extraordinary thing was that there was no noise with these troops. They have no bands, they have no bugles or drums—at least, when at work—and they preserve the utmost silence. One division, that of the Imperial Guards, was hidden away in the City of Wiju itself; they were like so many rabbits in a warren. The city was teeming with men, and yet from a short distance you could not see any indication of their presence. It was the same with the other two divisions, the 12th and the 2nd Divisions. The 2nd Division was on the left flank, and the 12th Division on the right; these divisions were hidden away, or masked, behind folds of the ground, in valleys, and so on, and there was no unnecessary movement of men. I may say that if I had not known how many men General Kuroki had at his command—and I do not know absolutely the correct number—I should have estimated that he had some 5,000 to 6,000 men in the vicinity if I had only to rely on my own observation, but he had 45,000 men, constituting the First Japanese Army, with some 20 batteries of guns, field artillery, and howitzers.



be possible to imagine. For 22 minutes, or a little over, about half an hour, that hill simply resembled a spouting volcano. Another extraordinary thing about it was that hardly two shells went astray. Two of the 40-lb. common shells charged with shimoseite, which are used with these 5-inch howitzers, fell on to the front breastwork of the redoubt; the remainder fell right into the redoubt itself. When I went on to the hill afterwards there was not a square yard of the surface of the summit of the hill that was not plugged with shell; it was a most remarkable sight, and a most remarkable exhibition of artillery practice. Under cover of this artillery fire, a certain portion of the 12th Division was sent across the river higher up. You will see from a sketch of the landscape which I show that the district is very mountainous, consisting of precipitous hills. The Russians had evidently thought they were inaccessible, but the Japanese battalions scaled the heights. I saw them vanishing over the crest, then they proceeded inland, and effected a passage of the Ai-ho. Certain companies by the 1st of May were round the left rear of the Russian position, while the whole of the left of the Russian position was seriously threatened by the 12th Division of the Japanese Army. Perhaps it would be advisable to give you an idea of the landscape before proceeding any further with a description of the action. The sketch I show was made by myself, and, although I say it myself, it is a very faithful representation of the appearance of the landscape. Of course, the scene of a battle varies from different stand-points. The view shows the inaccessible hills, so called, by the Russians, the City of Wiju with certain observation towers, and the Japanese position. The river is shown split up into branches by the islands. The precipitous hills continue and vanish almost on the horizon, and terminate in a great mountain. The foot hills on the other side, of which the conical hill was the most prominent, forming a salient position jutting out into the sandy plain, were mainly conical in shape, and were all trenched and fortified by the Russians. The town of Kiuliencheng is shown, with the City of Antung some six kilometres lower down the river. The range from the positions on which were emplaced the Japanese howitzers was about 3,500 yards to the summit of the hill; the range from the top of the conical hill to the position above the City of Wiju was 5,500 to 6,000 yards. The view shows the bridge which I told you the Japanese general completed during the night of the 29th, when he effected the passage of his howitzers across the river, and emplaced them on the island the same night.

The plan shown indicates roughly, in the first place, the Russian position. They had two batteries in position on or near the conical hill and several batteries in support, one battery at Makau and another battery at Shusong. The official return of the Russian forces, as furnished me by the Japanese, was some 20,000 men; the Japanese force was some 45,000 men. When the conical battery, or redoubt, had been silenced on the 30th April, the great infantry attack was ordered on the 1st May. The plains and islands are extremely sandy, and the islands themselves are covered with bush and trees. On the morning of the 1st May the infantry, who had effected a crossing of the river during the night by the pontoon bridges, were to be seen lying under the banks of the river, and when daylight broke the advance took place. The men went forward in perfect attack formation; I think I might say that the men were 5 paces apart, and the

companies some 25 paces apart. They rushed the whole of the position, and turned the Russians out of the trenches in under three hours. They were magnificently covered by their field artillery. It was a most remarkable sight to see the manner in which the gunners splashed and smashed the enemy with shrapnel just at the right moment; they apparently concentrated the fire of every gun on the spot that required it most. The attack being in this direction, the right flank of the attacking companies and battalions was to a certain extent in touch with the Russian trenches, or within range of the Russian trenches, before their left or other portion of the battalion was in touch, and it was an extraordinary thing to see these batteries from every position, as the men advanced, concentrate their fire on consecutive parts of the Russian position until they—the infantry—came to the shelter of the conical hill. They swarmed up the hill while the 12th Division got round to the left flank of the Russians, and when the Russians evacuated their trenches here and retired on Hamotan the 12th Division cut them off, with the result that some 2,000 prisoners and 46 guns, including eight Maxims, were captured by the Japanese. That, roughly speaking, was the battle of the Yalu River.

I have been asked to tell you something about the details of the Japanese organisation, and to describe some things that I saw relative to the various branches of their Army. I have very few pictures illustrating their cavalry, but I have one which gives perhaps an idea of the equipment and the appearance of these men. Very few cavalry regiments were employed with the First Japanese Army; I think there were only three altogether. It was impossible to make much use of cavalry because of the country, which is very hilly, and the plains were mostly alluvial muddy flats, used for raising crops of rice, and so on. The view shows something of the equipment of a cavalry man. They carry Muratta carbines, slung over their shoulders. They have a peculiarly high seat, and their sabres are hung from one strap attached to the belt. Many of the officers have a large chain of "curb" pattern from which their sabre or sword is suspended. A lot of these men use their old ancestral double-handled swords for weapons even now. They have converted them, in appearance, from the old style by putting a modern hilt and guard on, but they have the same blade, and they keep them as sharp as a razor. They use them simply to slice with; they do not thrust at all. The men have a very peculiar way of standing, especially the infantry officers, when they are using their swords; they stand with a bent knee and grip the hilt of the sword with both hands; they do not attempt to thrust or point. The mounts of these cavalrymen are shaggy little animals; they vary from 14.2 to 15 hands; but they are remarkably effective and strong little beasts. They are vicious, as well as very handy with their heels and teeth, and generally speaking are difficult to manage. In spite of their appearance, the Japanese cavalrymen appear to have been able to hold their own during this campaign, and they also appear to have been able to manage their horses very well. They seem to be good horse-masters, although I must confess it was difficult to believe that they would be. All the way up from Chenampo to the Yalu, a distance of 200 miles, I did not see any dead Japanese horses; that is rather a remarkable fact. Their system of shoeing cavalry horses and mounts in general is rather unique, and I show a little sketch which I will try to



explain. Sometimes it was preferable to fit shoes on to the horses in the field, and the view shows their plan of doing such things. They carry all their field farriery kit on pack horses. Two boxes are carried on a pack saddle; they are lifted to the ground; out of one they take the tools, tongs, hammers, nails, shoes, and so on; out of the other they take a few pounds of charcoal, a flexible pipe, and a few other fittings. Then they lifted up what was apparently the bottom of the box, which was hinged in the centre; then it was connected to the T-headed handle, inserted through a hole at the end of the box. What apparently was the bottom of the box was the lid of a bellows. They attached the flexible tubing to a nozzle on the side, led it to a hole in the ground which had been scooped out with heels and hands, put a few lumps of charcoal in the hole, set fire to it, and in a very few minutes they had a fire, and the shoes were put on. When the operation was completed, they put all the tools back into the two boxes, packed them up on the saddle, and off they went. It was a remarkably portable way of carrying their farriery kit, and well worth describing as one of those little details of their efficient arrangements, and worthy perhaps of imitation or emulation.

Besides their cavalry, I have to tell you something about their artillery. The picture I show is a poor photograph of one of the Japanese howitzers being galloped into action. The gun itself is always shrouded in a tarpaulin case, which is never removed until the gun is actually being fired. The Japanese are very careful about that sort of thing; I do not know why. They preserve all the details of their artillery very strictly secret, and it was impossible to get a photograph of one of their howitzers. It is a 5-inch howitzer from all appearance, but I was never permitted to get close enough to make any measurements or obtain any data. The howitzer throws a 40-lb. common shell, with a bursting charge of shimosite. Shimosite is their own invention, and the only thing I can say about it is that apparently it beats our lyddite or dynamite or any other explosive into a cocked hat. It is absolutely the most powerful explosive in its effects that I have ever seen. When the Japanese got the howitzers across on to the islands they were emplaced in these positions. The picture (see frontispiece) I am showing you of the emplacement has been produced by several people, so that probably you know it. The emplacement is a hole in the ground which was excavated. They then obtained a number of baulks of timber, and they planted these baulks in the ground end-on, in the manner shown in the photograph, and then cut a lot of branches and boughs of trees and lashed them in front of the baulks. Not only did these baulks afford a certain amount of protection to the Japanese gunners, but they completely hid the gun and the flash of the gun; of course, they used smokeless powder. At a short distance it would be impossible to distinguish the emplacement and screen as an artificial erection; some four or five hundred yards away it appeared as if it were a portion of the bush and trees with which the island was covered. There was no indication, to the Russians, as to where this terrific rain of shell was coming from.

Besides the howitzers I wish to show you the field guns which they use. I am not an expert on this subject, as you know, but I want to mention one or two points. The guns are fitted with a spade at the end of the trail; they also have a three-pronged wheel shoe attached to the trail by a wire rope, which runs over and under a

grooved brass break band on the inside of the nave of the wheel. It is claimed that this is already an antiquated gun, but from what I saw of the way they were used, and the ability with which the Japanese served them, and also their lightness and capability for being brought into difficult positions, in my opinion it is a very effective and useful weapon. Its range is some 5,500 yards; that is the greatest distance that I saw it in use. It may have a greater range, but it was very difficult to ascertain any data as to the Japanese artillery.

The next view shows the same field piece from the muzzle end. The gun is very light and effective.

The next is a view of the breech end showing the wire rope. The breech-block hinges downward. Some of these guns bear Krupp's name on the breech end, but I think they are all now made in Japan itself.

The next is a view of the gun showing the three-pronged wheel-shoe, and giving a general idea of the construction of the gun.

The next view shows the gun in position. Everybody is aware that the Japanese take every precaution regarding their men's safety in action. They never throw a chance away; they do not wish to lose more men than can be helped, although their actions seem to indicate that they do not mind losing their men. I noticed that when the guns were put into position they immediately commenced to make a shelter trench. A very simple hole was dug in the ground. If the Russians got the range of the position and made it rather uncomfortable for the battery, several times I noticed the men jump down into the hole, wait for a little while, and then get up again and serve their gun. I noticed also that they had very few, if any, casualties while that particular battery was in action. The Japanese have amplified that arrangement by making most extraordinarily elaborate gun emplacements and shelter trenches since, and so have the Russians.

The next view shows the shells which they use. When I saw the shells first I thought they were polished at the point, but they are not. The apparent polish is the lead foil cover of the time-fuse composition which they use. They do not have a brass time-fuse. The method of perforating this lead foil was rather extraordinary. All the orders were given in Japanese, and I could not understand them; but the gunner was supplied with a brass cup arrangement, which accurately fitted the point of the shell. Then at the word of command he moved a milled nut at the top, and gave it a smart tap with his hand. There was a punch attached to the middle nut, and it perforated the lead foil at a certain spot, which gave the accurate time fusing of the shell, and all I can say is that it was remarkably effective. I very seldom saw a Japanese shrapnel burst other than where it should burst, in striking contradistinction to the Russian shells, which apparently burst anywhere but where they were required.

The next is a view of a Japanese artillery team. The remarks which I made relative to the mounts of the cavalry apply in this instance also. You will notice the peculiarly high seat of these men. They do not give you the impression of being good horsemen; but they are effective, at any rate.

Then I have some views of Russian guns which were captured at the battle of the Yalu. You may have seen this view before, and

some data regarding them. I have seen these guns throwing shells a distance of 10,000 yards, and bursting shrapnel effectively at 7,500 yards. They are long-range modern weapons, bearing date 1901. Steel enters very largely into the building and the fittings of these guns; I think the spokes and rims of the wheels are the only parts which are made of timber. The trail and limber are made of sheet steel. Most of these guns had been dismantled by the Russian gunners before they were surrendered. The breech-blocks, sights, and other fittings had been destroyed, but four guns were captured intact. To give you an idea of the smartness of the Japanese, they stripped these four guns of their breech-blocks, sights, and other fittings, shipped them back to Japan as patterns, and a few weeks afterwards at Feng-wang-cheng all those fittings were received, batteries were formed of the Russian guns, and they were used at the battle of Liao-yang against their former owners. They captured a huge amount of ammunition when they captured these guns, which came in very useful, because Russian guns altogether out-range Japanese field artillery.

I have told you something about the terrific destruction effected by shimoseite, the manufacture of which is kept absolutely secret. The Japanese are great firework makers, so that there is nothing extraordinary about them having invented or made a most excellent explosive. On the morning of the great artillery attack on the redoubt at the top of the conical hill, after the fire had been going on for five or six minutes the Russian gunners evidently thought it was no use to attempt to return the fire, and they tried to retire three of their guns. I saw the horses being brought up with the limbers into the redoubt along a temporarily-made rough road which led into the work. They brought the horses up at full gallop, wheeled round, limbered up, and started out again as fast as they could put hoof to the ground. Then I saw another remarkable exhibition of accurate artillery fire. The howitzers on the island dropped shell just underneath the horses and the guns, while the field artillery showered shrapnel immediately over them. The result was that the guns did not get more than 200 or 220 yards; the whole of the teams, men, guns, and everything else, were all piled up at the end of that distance. Subsequent to the action the Japanese brought the *débris* of one of these gun-carriages down, and that is shown in the photograph (3).

A number of Maxims were taken by the Japanese. The photograph shows modern Maxim guns constructed by Vickers, Sons, & Maxim, but they had certain points about them which I had never seen before, and which perhaps may be fresh to some of you. The view shows an ordinary Maxim gun, fitted with a steel shield, mounted on a galloping carriage. At the back of the shield a supplementary water tank is placed. That tank can be connected with the jacket of the gun itself by a little flexible tube. The ammunition boxes are placed at the side, behind the shield. You will notice that the endless belts are in some places empty. The Russians seem to err on the side of weight, while the Japanese apparently have grasped the necessity of securing lightness with strength. Their guns and all their equipment are very light, but at the same time extraordinarily strong; whereas the Russian equipment, both ammunition wagons, field guns, and transport trains generally, is heavy and bulky compared to the Japanese.

I will tell you now something about the Japanese infantry

and their equipment. The view shows you some infantry in their winter kit—not the kit they wear in the depth of winter, but the cold season kit. They carry a heavy rolled overcoat on the top of a hairy knapsack made of hide, which contains their underclothing and kit of that description, a spare pair of boots, which weigh three pounds against our four-pounders, and which were very excellent, much better than our own. Then they have an aluminium water-bottle and mess tin, haversack, 200 rounds of ammunition in their pouches, back and front. They have a long bayonet to make up for their shortness in reach, because they are all short men. Most of the Imperial Guards Division, the rank and file, were supplied with very excellent field glasses, many of them by Zeiss and Goerz. That is an extremely important point in my opinion with regard to the equipment of men. When we remember that the sight of men has not improved much, if at all, during the last hundred years, and that rifles and guns of all descriptions have increased in range, it is obvious that an aid to sight, so far as the rank and file is concerned, is extremely necessary. Their fire-arm is the Muratta rifle, which very much resembles any modern small arm, our own Lee-Enfield, or the Mauser or Mannlicher, but its calibre is smaller. It is about 6.6-mm., roughly speaking,  $\frac{1}{4}$ -inch as against our .303, and it has considerable effect on the men's capacity for carrying more ammunition.

I must now tell you something also about the discipline of these infantrymen and the Army generally. It is extremely difficult to explain one's ideas relative to these men's discipline, because, in the first instance, the Japanese Army, although we may think or say here in England that they have compulsory service, is virtually a voluntary Army. Every man in the whole country, whatever his rank or whatever his position may be, wishes to serve, either in the ranks of the Army or in the Navy. One of the most admirable things about the Japanese is that they do not attempt, or wish, to contract themselves out of their liabilities to their country merely by paying their taxes; they believe in giving some of their time, some of the days of their life, perhaps life itself, to the service of their country, and I think we shall all recognise that that is one of the great factors in their marvellous strength. When talking about the discipline of an Army of that description, it is hardly necessary to say that their discipline is not founded on the fear of punishment for avoiding their duty. When I say that the Japanese Army is well disciplined, I mean that the Japanese Army carries out its duties most effectively through a desire on the part of the men to do their best for their country.

I will give you another interesting experience relative to the men's discipline and their mobility. When I was in Tokio, waiting for five or six weeks to get to the front, I had numberless opportunities for seeing the men prior to their leaving for the front. One day I rode along the great Ginsa of Tokio, and I overtook a battalion marching down to the railway station to entrain. As I got alongside these men—I was riding a bicycle at the time—an order was given in Japanese, and the whole battalion broke into a trot, and they trotted, I estimate, for a distance of three miles. The curious thing was that they did not break their formation, and at the end of the three miles' trot they were in as compact formation as they were when they started; there was no tailing off of any description. That perhaps accounts for the feats which these infantrymen

have performed in the campaign since. I believe it will be granted that for the first time in the history of warfare—I will not say the first, but one of the few times—these Japanese infantry have been able to overtake and capture guns of the enemy which were in retreat. I will stand corrected if that is not so. That is a work which is generally left to the cavalry, but in this instance it has been performed many times by the infantry. I attribute their capacity in that respect to the wonderful training in endurance which they have received in that and in similar matters.

The next view shows some Japanese infantry in their summer field kit, which much resembles our own. It is khaki in colour. They use no buttons on their clothing where such might be visible; they make use of hooks almost entirely. The view is a scene taken during the advance through Manchuria; the troops are enjoying their mid-day halt.

I will next give you a few details of their engineering arrangements. The view (4) shows you a Japanese pontoon used for bridging rivers; it is constructed of sheet steel  $\frac{1}{8}$ -inch thick. It can be taken into three sections, and each section can be carried by two men slung from a small pole over their shoulders.

You will see from the view that the boat in its entirety, stayed and strutted on the inside, very thin and very light, is carried on a light four-wheel wagon, drawn by one pony, led by one man. It is remarkably light, strong, and effective. The method of building the bridge is as follows:—Two of the boats are placed end to end, the square stern parts together; they are moored in the river with ropes and anchored. Then longitudinal and transverse beams are thrown across. The planking which forms the roadway is  $1\frac{1}{2}$  inch thick—extremely light—but they get over that defect by throwing a mass of corn stalks and grass matting over the top of the planking, that makes a very efficient roadway. It not only deadens the impact of the horses' hoofs and gun wheels, but it renders the passage of men, guns, etc., over the bridge silent. The view shows the great bridge over the River Yalu. It was put into position—it was not entirely constructed; it was brought down in sections and placed in position—and three battalions crossed it between sunset and sunrise, a rather remarkable performance.

Besides their pontoon bridges they have a system of building fixed bridges which perhaps will bear explanation. There is another little detail also to mention in connection with that. When a small river bed or a bad part of road is encountered the Japanese engineers trot away to the woods or forests and cut down some trees, of which there are any number. I saw one man pull a little saw out of his pocket, which resembled a tape measure when it was folded up. It was made in sections and linked together, the sections being about 3 inches long and  $\frac{3}{4}$  inch wide, with the teeth set either way, the saw being fitted with a T-shaped handle at either end. The men would get hold of this saw and pull it backwards and forwards on the trunk of the tree at any angle. It was a remarkably effective little instrument, with which they cut down trees in a very short space of time.

They build their fixed bridges in this fashion: The trunks of trees are driven vertically into the river bed, logs are thrown across, boughs and branches which have been cut from the trees are thrown on top of them, while mud and soil are placed on the surface

and beaten down, forming a very effective roadway. It takes but very little time to make one of these bridges; a few hours are quite sufficient for a company of engineers to bridge any small stream or bad place in the road.

Their field telegraph and field telephone arrangements may bear some little mention. At the battle of the Yalu River not only were the generals in command of the divisions connected by their field telephone service, but every battery was connected with the officer commanding the artillery. That enabled them to concentrate that terrific fire on the portion of the enemy's position where it was most required. Not only do they have an excellent field telephone service, but they have their own ordinary field telegraph system. The rapidity with which the men would run a ground or air line was remarkable. At mid-day during the battle of the Yalu, the 1st of May, General Kuroki was connected and in communication with Tokio through the field telegraph service.

I will say now something about their intelligence work. I believe everybody is aware of the efficiency of the Japanese intelligence system. I can only recount rather an extraordinary experience which happened to myself. When I was in Port Arthur, on my road out to Japan last year (1903), I entered a barber's shop, and I was shaved by a very courteous Japanese—they were all Japanese in this particular shop. A few months afterwards, when I was in the field in Manchuria, an officer came up to me one day—a Japanese colonel—and he said: "You do not remember me?" I said: "I have not that pleasure, although your face seems familiar." He said: "Do you remember when I shaved you in Port Arthur?" He had been employed in Port Arthur as a barber, simply for the purpose of obtaining information. Then I know another rather remarkable circumstance. When I was travelling through New-chang, on my road to Peking from Port Arthur, I met a great English merchant there who informed me that he was very sorry I had come twelve hours too late, because he would have been able to introduce me to General ———, who had been there the day before dressed as a Chinese coolie, and he had been carrying one of their carrying sticks. You know that the Chinese and Japanese sometimes use a bamboo, but in some instances they use a flat stick, from which they suspend their loads at either end, usually a basket for vegetables or other commodities. General ——— had one of these, but it was made hollow. This gentleman at New-chang had seen what he had in the hollow of his stick. It contained certain plans of the Manchurian Railway. Mr. ——— got him (the general) away from New-chang disguised as a simple coolie. It was a most remarkably effective way of so doing, because their appearance gives them every opportunity for disguising themselves as Chinese.

Now I have to tell you one of the most interesting things connected with the organisation of the Japanese Army; we may say it is one of the auxiliary departments. Every Japanese believes in doing something, and if they cannot serve in the fighting line they are recruited in the coolie corps, which does a lot of the transport work of the Army: the carrying of supplies and so on from the bases to the fighting line, the unloading of transports, and all the thousand and one operations which may not necessarily mean fighting. These men receive a certain pay. They receive six sen a day, which is equal to 1½d. English money, and of course they get their rations



and uniform. The only time I ever heard any complaint from them, or anything that might be interpreted as being a complaint, was a song they sang: "How long will these Russians keep us working for six sen a day?" Their system of transport may be divided into several classes. The view shows you one—their pony-drawn transport. The roads in that part of the world are very difficult. They have not any fine macadamised highways. This view shows you a light cart, which is very useful. It weighs 400 lbs.; it will carry a load of 800 lbs., and it is drawn by a small Japanese pony. The cart is fitted with a seat, bent shafts, and so on, and it was a most effective little vehicle for carrying provisions and stores over the "roads." In most parts it was impossible for the Japanese Army to use even pony-drawn carts and they then use the light two-wheeled carts which are very common in Japan; they weigh 200 lbs., they carry a load of 400 lbs., and are drawn by three men (view 5). I photographed the transport shown at the end of the men's day's work. The provision depôts along the lines of communication are about fifteen miles apart, and these men had done their fifteen miles loaded and their fifteen miles empty, and they were just returning to the starting place when I photographed them that day. I think it will be granted that that is a very excellent day's work. For this they get six sen, or 1½d. a day. But, as I say, these men do not fight for the money at all. The infantry and men of the rank and file get only 10 sen a day, equal to 2½d. of English coinage, and I believe I am correct in saying that if it was impossible for the Japanese Government to pay their men they would all fight for nothing. I may here remark that these men say they are called out on "National Duty"; that is their great expression, and it is a very admirable sentiment.

Together with their own coolie corps transport, it is necessary sometimes for the Japanese general to make use of other transport, and the view I now show you is rather a remarkable one. It shows a Chinese cart, with its extraordinary team of animals—a pony, a mule, a bullock, a donkey, and another pony in the shafts. Some of the men said that they had seen pigs with these teams; but I never did.

Then I want to make some remarks relative to the casualties, not only at the battle of the Yalu, but during the whole of the campaign. At the battle of Liao-yang, one of the most recent battles of which we have reliable data, there were some half a million men engaged for several days—five and a half to six days. We can compare those figures with the battle of Waterloo, where there were some three hundred thousand men engaged, and where the battle lasted for a few hours only. The French at the battle of Waterloo lost 42 per cent. of the men engaged—I believe my figures are approximately correct—while at the battle of Liao-yang the Russians lost 7½ per cent. and the Japanese 8 per cent. killed, wounded and missing of the total men engaged. That is rather a remarkable contrast in view of the amount of talk which we hear nowadays about the terrific slaughter in modern battles. Besides, even that does not cover the whole of the ground, because it has been proved that nowadays some 70 per cent. of the wounded casualties are back in the fighting line within a very short period; whereas in the old days, wounds were very much more serious, and, generally speaking, a very much greater proportion of the men were absolutely disabled. As a proof of what I am saying regarding the humane

effect, of the loss of the stopping effect, of modern small arms, I will give you an instance. A Japanese soldier was shot right through the left eye and out of the left side of his head, and yet a few days afterwards I photographed him walking about. I saw many instances of Russian soldiers being shot through the head by a Japanese bullet. I saw one young lieutenant captured at the battle of the Yalu who was shot through the head, just underneath the right eye and out at the back of his neck, missing the spinal column, and yet he was as chirpy as a cricket the day afterwards; he had a black eye, and that seemed to be the only disability he suffered under, whereas in the old days of the Martini or Snider, if a man was hit on the head he was generally a dead man.

With reference to that explanation as to wounded men, I would like to tell you a rather remarkable thing, illustrative of more things than one, perhaps. When I was in Japan, prior to returning home, Lady Macdonald told me of an extraordinary case. Sir Frederick Treves was out in Japan some few months ago, and of course visited the hospitals. In one hospital he entered the operating theatre, where three men were brought in to be attended to one after the other. While the first one was being attended to, Sir Frederick Treves felt the pulses of the others, and they were quite normal, although they knew that in a few minutes they would be operated upon themselves. That is not an exhibition of pluck in the ordinary acceptance of the term; it only illustrates that the Japanese nervous organisation is totally dissimilar to that of the white; it is not so elaborate or so highly strung. There is more of the animal in the Japanese, one might say. Further proof of it, if required, was seen by myself in many instances in their field hospitals. These were run magnificently; they were all supplied with modern equipment, and kept most scrupulously up to date; but the surgeons were very sparing in their use of anaesthetics. I have seen operations performed on these men without the use of any chloroform, ether, or anything else, which we should never think of performing without an anaesthetic. On asking the Japanese surgeons the reason of this, I was told straight out: "Our men do not always require chloroform or any anaesthetic; it is not necessary to use it with our men like it is with you white men." Perhaps that may help you in estimating this people's character as a fighting race.

Here is another admirable little detail of their organisation. We are all aware that on many occasions the supply of stretchers will run out when a big action has been fought, and perhaps it is not always possible to obtain a regular stretcher to carry a man. The Japanese will improvise anything out of timber at very short notice. They will make an excellent stretcher out of a couple of saplings, with some old canvas or grass matting, in less than no time. They suspend the stretcher from carrying poles over the shoulders by means of thongs; four men will put the poles on their shoulders, and will very comfortably take out of action a wounded soldier suspended in the stretcher. I got into one of these stretchers and told the bearers to trot along as fast as they could, and although, of course, I was not wounded, I found it was a remarkably comfortable way of being carried.

In addition to their field hospitals, the Japanese have a splendid service of hospital ships, which are most excellently equipped in every way with every modern appliance for treating sick and wounded men.

I have been asked to make a comparison of the lines of communication of the Russian and the Japanese, and inasmuch as I was able to traverse the Russian lines of communication, perhaps a few ideas with regard to them, although they may be getting stale, will be of use to you. I would like to point out on the map where Mukden and Liao-yang are situated. First of all, taking the Japanese lines of communication, compare the length of them from Ying-kow, which has been one of their main bases, although it will be frozen up now, to the Sha-ho. Compare that little length of line of communication with the Russian, or, even going as far south as Dalny, which is unfrozen during the winter months, or with Takushan. Then take the other side of the question. Compare Moscow and Mukden, a distance of over 5,000 miles, with a single line of railway. I travelled out to Japan by that railway. I left London on December 27th of last year (1903), and I travelled during the most inhospitable time of the year, and the climatic conditions that were then existing are existing at the present moment. In order to give you an idea of one of the great disabilities with which the Russians are confronted at the present time, the view I show you next is the great ice-breaking steamer that is used on Lake Baikal.

When I crossed that lake, nearly a year ago, the thermometer registered 25° below zero, and the ice was 3 feet 6 inches thick at that time, early in January. A few days prior to my going across the thermometer registered nearly 40° below zero. Lake Baikal is one of the weakest links of the line of communications of the Russians, and that is why I show this photograph to you. This ship carries in its interior 27 loaded trucks, and she makes the passage four times in 24 hours, the lake being 40 miles across. If through any reason she was to stop running a day, say, owing to a breakdown, it would take two or three days to re-open the passage, because, at the temperature which exists, although the ice is crushed it freezes together again in a very short period. Recently the Russians have completed the circum-Baikal line. That line extends round the southern extremity of the lake, and is 160 miles in length, mainly constructed through tunnels. The photograph exhibited will give you an idea of the work which the Russian engineers have had to do in constructing a railway line through this country. The shore on the southern extremity of Lake Baikal is most precipitous.

The next photograph is a view of the great dock which the ice-breaking ferry enters every time she makes a communication with the railway on either side. I do not know whether it has struck many of you, but the question of temperature has a considerable bearing on the Russian capacity for keeping the field. The photograph which I now show you gives you an idea of the costumes the people wear in that part of the world during the winter months. I took that photograph on the platform at Harbin. When we remember that at the present moment, or within another month, every drop of water which the Russian forces in the field have to drink, every drop of water that their horses and other animals require, and also every drop of water that is used in every locomotive that goes along that great Trans-Siberian Railway will have to be kept thawed by artificial heat, we shall appreciate the difficulty which is contained in only that one particular of the Russian campaign. Every drop of water in that country is frozen solid during the winter months unless it is kept thawed; and with the Japanese in possession of the Yentai coal

mines, the position in Northern Manchuria of the Russian forces will very shortly, in my opinion, become very serious.

I will not say anything about the difficulties of transporting food along that line of railway. It stands to reason that during the last few months the Russians have been unable to accumulate any stores. When I went out I saw no sign of any accumulation of stores along the whole of that great line, and the Russian Army must have been living from hand to mouth during the past few months. Granted that they have half a million men in the field, I put it to you that on active service, in a temperature of that description, it would be impossible to give men less than 2 lbs. weight of food a day each, that is the irreducible minimum for men in the field in a temperature of that description; and when we remember that, if not now, within the next few months, at any rate towards the end of the winter season every ounce of food for these men will have to come from European Russia, I cannot see how disaster to the Russian arms can be averted. We must also recollect that, taking a line of communication 5,000 miles long, the difficulties of transporting supplies and men along that line do not increase in a simple arithmetical ratio, but in geometrical ratio to the distance covered, and I think we shall see that it is almost an impossible feat for General Kuropatkin to maintain his Army in the field at such a great distance from his base during the terrific winter which will shortly be upon him.

The next photograph should have appeared earlier. It illustrates the way the Japanese have of entrenching themselves. I point out to you that they invariably choose a place that is close to some natural object or obstacle, trees or ridges of rocks. I think it is pretty well known that the existence of these natural objects in the landscape to a certain extent affect the aim of the enemy's gunners. We saw that in South Africa, and the Japanese seem to have seized upon that idea. I know, too, that it was remarkably effective.

I daresay many of you will have read the account of that remarkable duel between a Russian and Japanese battery at the battle of Liao-yang, how all day long the Russian battery fired at the Japanese battery and their shells burst 400 yards in the rear of it, and how the Japanese artillerymen never suffered a casualty during the whole day, while the Russians lost heavily. At the end of the action it was very obvious what was the cause of the circumstance, namely, that the Russian gunners' aim had been influenced by a ridge about 400 yards in the rear of the Japanese battery's position.

I have been asked to say something relative to the occupation of war correspondents. Of course, I know that the war correspondent is generally looked upon as a nuisance by many people, but I would submit that, under the circumstances of life at present existing in London and in the world generally, the war correspondent is a very necessary nuisance. But I would also submit that his work and his business should be to a certain extent codified, and that he should be put under authority, because it is rather annoying for him sometimes to be recognised and at other times not to be recognised. Also it is rather annoying to know that in many instances there is justification for their not being recognised. Especially so was it in Japan. Many people forget, or do not recognise, that the Japanese people are a most courteous race, but they are altogether unacquainted with Western ways as regards newspaper work. So it did not tend to the

extraordinarily good treatment of war correspondents when men went out as such who were absolutely ignorant of war. I heard one man in the field who represented a London newspaper ask a Japanese staff officer this question:—"Will you kindly tell me the difference between a common and a shrapnel shell?" I put it to you that a Japanese staff officer who had been, to a certain extent, told off to attend to the war correspondents—I put it to you that his opinion of a man professing to be a war correspondent would not be greatly heightened by such a question as that. There were also one or two other peculiar things that happened which I will not enter upon now. But the fact remains that when these people saw things appear in the English Press—and, mind you, every paper that is published in England was returned ultimately to Japan—when they saw illustrations of battles drawn by men whom they knew had never been within seven or eight hundred miles of the battle—I put it to you that that did not tend to improve the position of the war correspondents. I hope that some time the war correspondents' profession will be properly recognised and put on a satisfactory basis.

I think I ought to tell you something about the "compulsory" education of the Japanese. These people not only wish to serve their country, but they wish to render themselves efficient in the service of their country, consequently they desire to be educated equally as much as they desire to serve their country. There is no "compulsory" education in Japan. When an individual, a community, or a nation desires to do a thing, nobody can say that they are compelled to do it. In addition to the ordinary education, the Japanese also wish to be educated physically. Their physical education proceeds equally with their mental education. At every open spot in every city of Japan athletic and gymnastic appliances are erected, so that the youth of the country may have opportunities of attending to their physical development.

Besides their education, I would like to tell you something of their creed. Perhaps some of you know it, but it has such a remarkable effect on the people as a fighting race that I cannot pass it over. Their creed is Shintoism. It is not a religion; it has absolutely no moral code attached to it. The teaching of Shintoism is this: that it is the imperative duty of every good Japanese to implicitly obey the command of his Emperor. As we all know, the Emperor of Japan is the deification or the deity of patriotism, and is the embodiment of the nation in one head. Consequently the implicit obedience inculcated by that creed has a great bearing on their capacity as fighting men, combined with their fatalistic ideas, and also their less elaborate nervous constitutions.

I may sum up what I have rather fragmentarily told you this afternoon by saying that the lesson which I learned out in Japan, and which I am afraid I have been very inaptly able to tell you something about, is the great lesson of the value of efficiency. The efficiency of the Japanese is one of the most remarkable things in their character; in fact, many of us may be of opinion that it is the only good thing in their character. But I do not say anything at all about their morals or anything else; I look at things as they are, and I just simply look at the Japanese from the material point of view. We can learn lessons, even from a people of that description, who have learned so much from the Western world during the last forty years, and I think we can learn the lesson of the value of efficiency. But

it is no use, in my opinion, tinkering with this lesson. If we strike at the root of the matter, as shown us by this Eastern people, we may do something good, but until then I believe we shall never be able to secure efficiency. If we could educate the people of this country up to an acknowledgment of their responsibilities as citizens, that they do not get rid of those responsibilities by solely paying their taxes, but that their responsibilities involve service to their country in some slight degree, I believe that not only should we secure perfect immunity from attack on the part of any other Power, but that our Service would be one of the cheapest and most efficient Services in the world.

The CHAIRMAN (General Lord Chelmsford, G.C.B., G.C.V.O.):—I am sure that you will all wish, through me as occupying the Chair to-day, to express your very hearty thanks to Mr. Kirton for the very interesting and instructive lecture he has given us with regard to the conduct of the Japanese campaign in Korea and Manchuria. I am sure we all know a great deal more about the Japanese than previous to the lecture, certainly I do myself. When we find amongst us a man who has just come back fresh from the war, with that observant mind which I am sure Mr. Kirton will excuse me for saying that he possesses to a very high degree, we must all go away from the lecture this afternoon feeling that we are better equipped for the consideration of that tremendous struggle which is now going on between the Japanese and the Russians. I ask you by acclamation to give a very hearty vote of thanks to Mr. Kirton for his extremely interesting lecture.



## THE RÔLES OF CAVALRY IN MODERN WAR.

*By Lieut.-General of Cavalry VON PELET-NARBONNE.*

Translated from the "Internationale Revue über die gesamten Armeen und Flotten" nach "Die Zeit."

IN military circles a lively interest is being exhibited as to whether the Russo-Japanese War will furnish any special lessons on the employment of cavalry. It would seem that one might expect an answer to this question in the affirmative, all the more as Russia disposes at the theatre of war of an enormous numerical superiority of cavalry, and that the Russians may be looked upon as a race of horsemen *par excellence*, whilst the Japanese, from the physical point of view, are not so fitted for riding, and their cavalry is considered inferior in quality to their artillery and infantry. But the strange thing is, that Russia has not turned her numerical superiority in cavalry to profitable account, because, apart from a brigade of dragoons, there are only Cossacks at the theatre of war, who do not form part of the Regular cavalry, and who in any case cannot be considered as cavalry for the field of battle. So that we have learnt nothing on the subject of any effective cavalry action in the battles which have been fought up to the present. The hilly and rugged nature of the country occupied by the two opposing Armies is, moreover, unfavourable for the employment of masses of cavalry, and probably prevents shock attacks by strong units of that arm. Towards the middle of last May the Russians with their Cossacks made some attempts against the Japanese lines of communication in Korea; but, undertaken with insufficient forces, these attempts, while giving some appreciable results, were unable to influence in a decisive manner the progress of the operations. Since then the Russian cavalry has been reinforced, and we shall see if it will not find opportunities of proving its value, when, as events seem to indicate, the operations are transferred to the north of Mukden, that is to say, to a less rugged region.

In view of this eventuality, it would seem interesting, from a general point of view, to investigate what one may expect from cavalry in a modern war.

It is clear that in face of the extraordinary state of perfection to which fire-arms have been brought, cavalry can no longer dream of obtaining, when mounted, the same results as they obtained one hundred years ago in their attacks on other arms. The days of Hohenfriedberg and Rossbach, when some hundred victorious squadrons charged over the field of battle, dispersing numerous battalions and capturing guns, are gone for ever. The hail of bullets which is now poured on assailing cavalry renders successes of that kind to-day

a material impossibility. But the new conditions which govern the conduct of Armies have considerably enlarged the rôle of cavalry in other directions, without that arm having entirely to give up co-operating in a decisive fashion to secure success on the field of battle, as we shall see further on.

The new rôle, or rather the enlarged rôle, of which we wish to speak, is the scouting service in advance of the front of the Army. At the period of Frederick the Great the importance of this rôle was less, because the Armies of those days, with far fewer numbers, always camped and marched in dense formation till in proximity to the enemy, and before the battle the opposing generals could make a personal reconnaissance. Moreover, espionage<sup>1</sup> played then a considerable rôle. Scouting on a large scale, that is to say, strategical scouting, such as is carried out to-day by large masses of cavalry, was a thing unknown. But at the Napoleonic epoch, when Armies became larger, the rôle of the scouting service increased in proportion as the numbers of the combatants grew, without, however, reaching the importance that this service presents to-day in European wars, between Armies composed of millions of men! It is quite clear that the larger the numbers of the combatants the more difficult it is to unite, at a precise moment and a pre-determined spot in view of combined action, the different masses of from 30,000 to 60,000 men, who in columns one or two days' march apart, are moving along different routes. Any modification in the direction of the march of this gigantic "whole," bearing in mind the necessity of protecting the lines of communication and the taking of measures to ensure the due provision of supplies, of, in brief, all the conditions which hamper the rapid carrying out of the orders of the Commander-in-Chief, all requires a certain amount of time to execute, which time can only be obtained if the cavalry pushed several days' march in advance, furnishes in good time the desired reports of the movements of the enemy. Formerly the Commander-in-Chief could make his reconnaissance himself, but to-day it is the cavalry which is the eye of the Commander.

This rôle of the cavalry, which is so extremely important, although but little *en évidence*, and often completely ignored in histories of wars, commences from the deployment or strategic concentration which the cavalry ought to protect against the designs and enterprise of the enemy, compelling one to study this operation from the enemy's point of view, and to counter-check it by operations directed against the enemy's own lines of communications, and especially against the railways. These lines of communication, so delicate and liable to destruction, constitute to-day an excessively important element of war, as proved by the Trans-Siberian Railway, the protection and destruction of which have created for the cavalry new and important tasks. I do not think it necessary to demonstrate that the destruction of an important railway which, by the transport of provisions, munitions of war, Reserves, etc., enables an Army to

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<sup>1</sup> In no previous war has espionage played so important a part, as on the Japanese side in the present one, where swarms of Chinese spies precede the armies, and advantageously take the place, from the point of view of the Intelligence Service, of the Japanese cavalry, a force which leaves much to be desired. This situation is an absolutely abnormal one, and will not be reproduced on any European theatre of war.

subsist and fight, thus constituting itself, in a measure, the umbilical cord of that Army, that the destruction of that line, we will say, may cause the loss of a whole campaign, even if the interruption of traffic only lasts some days. But no arm is in a better position than the cavalry to direct useful raids against these lines of communication, because that arm can appear suddenly and disappear in the same way. But, for that purpose, one ought to be able to dispose of large numbers of cavalry, because the main body of the Army should not be deprived of its cavalry for scouting, as a consequence of the numerous detachments which must be sent on these raids, from which often they do not return for several days, and then with their effective strength much reduced, principally due to the loss of horses, the result of the strain to which they have been subjected. During the War of Secession in the States, the South, especially under the command of Stuart, frequently used their cavalry for a similar object. These expeditions—called raids—gave the best results; but at the same time they were the cause of the main body of the Army feeling the want of cavalry. In the present war in Manchuria, the Japanese dispose of too few cavalry to be able to attempt with masses of that arm any enterprise against the Trans-Siberian Railway, although certainly there is no lack of desire to do so. Failing anything better, they have tried to accomplish the task by bands of Hunhuses, the efforts of these brigands have however been foiled, thanks to the vigilance of the Russian cavalry.

The manner in which cavalry was used during the War of Secession merits anew all the attention that has been devoted to it for some time past. One sees Armies formed only at the beginning of the war, and these Armies, deprived of the advantages, but also relieved of the fetters, of old traditions, constituting and utilising their cavalry corps as the particular circumstances of the moment and place demand and permit. The Southern States furnished accomplished horsemen, who were at the same time extraordinarily good marksmen. Mounted on superb and hardy horses, these cavaliers were rapidly formed into cavalry corps, which, improvised as they were, were evidently destitute of the training necessary for cavalry on the field of battle; but, on the other hand, possessed of qualities, due to the *personnel* and their horses, which one could not find in the same proportion, in any European cavalry. In the Northern States, on the other hand, there was a complete lack of the material necessary for forming a useful cavalry. The regiments created entirely at the outbreak of hostilities were not in a condition during the early years of the war to make head against the Southern cavalry, which remained absolute masters of the theatre of war, and contributed enormously to the success of General Lee, Commander-in-Chief of the Southern Armies. It was only later in the course of the war that the Northern States succeeded in creating a cavalry at all worthy of the name by recruiting specially for this arm in the Western provinces. But in this war the Southern cavalry fought as well on foot as on horseback, and in the numerous battles which occurred in those very wooded regions the men made much more use of the carbine than of the sabre; yet in spite of this they never became mere mounted infantry, but remained cavalry in the truest sense of the word. Thanks to their skill in this double capacity, and provided with an excellent horse artillery, they were able to carry out their celebrated raids in rear of the enemy and their brilliant scouting without giving up their proper *rôle* in battle.

When the wars of 1866 and 1870 burst on Europe we had not yet drawn from the War of Secession the lessons that it conveyed, whether because the events of that war were not then sufficiently known in detail, or because, in European Armies, an unjustifiable air of superiority was assumed towards the American forces. In 1866 neither the Prussian nor the Austrian cavalry played a part commensurate with their strength and their intrinsic value, because their equipment, their training, and their mode of action aimed almost exclusively at their employment as cavalry for the field of battle, and the carbine was considered quite an accessory weapon. In the course of the campaign of 1870, the German cavalry did good work in scouting, and at Vionville it proved that it was in a position to win success also against other arms, as soon as it was known how to use it. But in the course of the operations against the armies of the Republic the service that it rendered in scouting was often insufficient, because its defective armament and incomplete fire-training did not always permit of its overcoming the resistance that was offered by armed bands. On the battle-fields it was rarely brought into action, because the commanders who should have been able to lead large masses of cavalry were completely wanting; they had not been trained.

After the war the faults which existed were quite recognised, and there has been an endeavour made to better prepare the cavalry for war by giving them a suitable firearm, exercising them in dismounted fighting, in scouting in large bodies, and shock tactics on the field of battle, then, finally, in training the commanders who should be able to lead them.

In Russia also an endeavour has been made to realise these reforms by giving the cavalry a rifle equal to that of the infantry and by training it to dismounted action. But in consequence of the continual improvement introduced into fire-arms there is an idea abroad among the Russian cavalry that, against infantry armed with up-to-date weapons, there is nothing to be hoped for from a cavalry charge, and that only by its fire can success be obtained. The consequence of this has been the disappearance of the *esprit cavalier*, of the fearlessness, of the daring of this arm, and it was thus that we saw during the war against the Turks, 1877-78, that there was almost always a want of the spirit of enterprise, and that it rarely attacked when mounted, confining itself oftener to tame dismounted fire-action.

There is little to say about the Boer War. The Boers possessed no cavalry, and that of the English was not prepared in any respect for a campaign, above all for one under the conditions which presented themselves in South Africa. It was only at the end of the war that it obtained any results, when Lord Roberts directed the operations, and had a French to lead it and use it without sparing it. Without wishing to give offence to any cavalry, whoever they may be, nor any leader, whoever he may be, we will say that above all it will be necessary to cure cavalry of its "horror of blood," if we wish to obtain any results from its use, because, to use an old saw, you cannot make an omelette without breaking eggs, or, rather, he who will take no risks at play will win nothing. This "horror of blood" springs in a great measure from the constant repetition of that hackneyed phrase about "this arm, being so costly and so difficult to replace, that it must consequently be sparingly used." This theory is true up to a certain point, above all when there is a question of avoid-

ing useless or excessive fatigues, which ruin the horses; but those who wish to make of this theory a dogma, that the cavalry on the field of battle are merely to look on, are woefully in error. Cavalry must learn to support losses as the infantry does without being too anxious about them. "It is too costly an arm to render no service," said the gallant General K. von Schmidt, modifying somewhat the above-mentioned doctrine. . . .

Let us see now if, in spite of the growing efficiency of modern arms, the cavalry is still in a position to intervene with the *arme blanche* in the course of a battle. To this question we will reply categorically with a "Yes." It is true, against unbroken infantry, even deployed as skirmishers, cavalry making a frontal attack can do nothing so long as the infantry fires calmly, while the attack by surprise is rendered difficult by the long range of modern weapons, which obliges the cavalry to remain at a distance in rear before attacking, unless there is cover close to the fighting line. On the other hand, its intervention is favoured by the length of the lines of skirmishers the infantry adopts for fighting, and which are very weak on the flanks; then the extraordinary efficiency of modern fire-arms is such that considerable losses are often suffered with great suddenness, which destroys the *moral* of the troops and easily occasions panics. A body of troops which in the course of a three or four hours' struggle suffers a loss of twenty per cent. of its effectives will sustain that loss without its *moral* suffering. But if these losses occur in a few minutes, as may very well happen to-day in an attack upon a well defended position, that body of troops will be "*mûre pour le charge*" (lit., ripe for the charge, or in a condition to be ridden down), because its infantry will be then in that state to which the 38th Infantry Brigade were reduced after its unfortunate attack at Vionville on the 16th August, 1870, which is described by Fritz Hoenig, who was serving with it, as follows:—"At this moment it is a matter of absolute indifference whether this *human drove* is armed with a repeating rifle, a flint-lock gun, or a pitch-fork." Situations of this kind will present themselves more frequently in future wars than formerly; it will only then be necessary for the cavalry to know how to take advantage of them.

Owing to the great effectiveness of shrapnel, artillery, at the moment when it is in action, is in a position to repel by itself any cavalry attack directed against its front; against flank attacks it is almost helpless, and even its oblique fire is of little effect; attacked in rear or while on the march, it is defenceless.

In pursuit cavalry is always the arm *par excellence*, on condition, be it understood, that it is armed with a good carbine and knows how to use it. Then it is able to appear suddenly on the flanks of the enemy's columns, which, beaten morally and physically, are trudging painfully along, and either rout them by a hail of projectiles or charge home with the sabre, or yet again employ both modes of action. Thanks to its mobility it can disappear when the resistance becomes energetic, and re-open fire at another point, constantly harassing the exhausted enemy and delaying his march, in order to wear out its power of resistance and provoke a panic.

*En résumé*, cavalry is of capital importance for scouting service and for operations against the enemy's lines of communication, as well as for pursuit; and this importance has only increased during

the last ten years or so. It has lost its importance on the field of battle, without, however, giving up the idea of being able to intervene effectively.

But in order that cavalry may preserve its importance in the circumstances of to-day, it must adopt an equipment, an armament, and a system of training suitable to the new conditions of war. It must consequently be supplied with a better fire-arm, and be made expert in fighting with it. Even in times of peace it must be grouped in large units, that is to say, in cavalry divisions, and these ought to be trained in scouting, as well as fighting *en masse* on the battlefield, so that these divisions may form tactical units, which may be in a position to fight in an independent manner against the three arms, to cross water-courses, and to organise fortified positions. It is then necessary to attach to the cavalry division, besides horse artillery, mounted pioneers, bridging material, and, if possible, machine guns. Organised in this manner cavalry divisions will be able to play a rôle in battle, even if fighting with the *arme blanche* is impossible.

But what is of supreme importance is that this arm should be provided with true leaders. If mistakes are made in the choice of these, if they are without the spirit of enterprise, the necessary daring, the best instructed and the best organised cavalry will not be able to secure success. More than with any other arm, with cavalry success depends on the personality of the leaders.



# THE STRUGGLE FOR THE PACIFIC.

*Extracts from the French of Mons. RÉNÉ PINON.*

Translated by permission of the Author

*By Major J. L. J. CLARKE, East Yorkshire Regiment, D.A.A.G.  
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## PREFACE.

BY the kind and courteous permission of the author, Mons. René Pinon, I have endeavoured in the following pages to translate into English some portions of his able and graphic article entitled "The Struggle for the Pacific," which appeared in the number of the *Revue des Deux Mondes* published on the 15th February, 1904.

The subject is one of such absorbing interest, and one which may possibly be fraught with such vital consequences in the near future, that the views of a Frenchman of note on the political, strategic, and economic situation in the Pacific and the Far East cannot fail to be of value to all Englishmen who are students of history and strategical geography.

Mons. Pinon divided his article into several parts, and I have taken the liberty of re-grouping the portions translated as follows, viz. :—

Introduction.

Part I.—The Rise of Japan.

„ II.—The Russian Empire.

„ III.—The United States of America.

„ IV.—The British Empire.

„ V.—Germany, Holland, and France.

Conclusion.

## INTRODUCTION.

That the peace of the world and the repose of Europe would one day depend on a decision taken at Tokio by the Mikado and Ministers, is a fact, which, of a surety, the First Napoleon would never have dreamt of, and which would have astonished Prince Bismarck. But the consequence of the expansion of European nations to the far corners of the globe are making themselves felt with a daily increasing intensity. . . . .

The entrance upon the scene of new races who, up to quite recent years, kept themselves outside the general current of European affairs, fulfilled their own requirements and developed their own resources undisturbed, has greatly modified the former factors in the problem of the balance of power, and has changed the arena, where the chief interests of the future will lie, and where the sovereignty of the world will be disputed. . . . .

We talk now of supremacy in the Pacific as we used to of the Mediterranean, and in its vast seas, less repellent to the traveller

than the sterile deserts of Sahara, new interests have arisen, which threaten to entangle fleets and armies in a formidable conflict. A new door, the Panama Canal, will soon open direct communication between the Pacific and the Atlantic. The axis of the world is being moved little by little away from Europe towards this Pacific, where our Antipodes lie, and which washes the over-populated shores of China, the Malay Archipelago, and Japan. . . . .

China attracts to her still vast and hitherto unexploited resources the greed of new energetic and combative races, who have established round the Pacific the chief centres of their influence and the finest of their Colonies. Russia has to-day a large portion of her Empire and most urgent interests centred on the shores of the Pacific; supremacy in the great ocean whets the appetite of the United States; the English, with British Columbia, Singapore, and Hong Kong, the French with their possessions in Indo-China, and the Germans with Kiaou-Chou also have claims towards ancient Cathay. . . . .

The problem of the command of the Pacific is intimately connected with that of the development of the Middle Empire. The Pacific turned into a Mediterranean is a paradox of yesterday, which has to-day become a reality. Most of the great Powers, who for centuries have been the makers of history in Europe, are represented in this gigantic ocean. England, France, Germany, Russia, and Holland have taken up their positions round the battle-fields of the future; they have established their stalls near these markets. These nations are seen to-day in a new and possibly unfamiliar scene in rivalry with younger States, which have sprung from them, viz.: the United States, the Dominion of Canada, the Commonwealth of Australia, and this Japanese Empire, whose European exterior conceals a core so essentially Asiatic and so impenetrable to our analysis. . . . .

## PART I.

### THE RISE OF JAPAN.

The regions, where the Pacific washes the shores of Asia, have ever been among the chosen habitations of the human race. Nearly 500 millions of people, almost one-third of humanity, broil in the tropical sunshine of these fertile lands. The centre of attraction for European activity lies there, since life on the Pacific has been developed; the ships and merchants of the West have come there ever since the time of the Portuguese; there, since the Yellow World came into contact with European civilisation, has arisen all of a sudden in the 19th century a new Power, at once very old and very young, which holds one of the first places in the world of the Pacific, and aspires to *the* first—namely, Japan. It was the Chino-Japanese War of 1894-95, which revealed the results of the political transformations that had been brought about in the Far East, and which, at one bound, placed Japan amongst the Great Powers. The mere fact alone of the existence in the Yellow Sea of a State, organised in European fashion, provided with a very powerful Army and Navy, is sufficient to produce the problem of the command of the Pacific, because the Power which can utilise the resources of the Celestial Empire and guide it in the path of civilisation and progress, is

bound also to exercise a preponderating influence on all the western portions of the great ocean. . . .

The events which are now occurring in the Far East are only the logical sequence of those of 1894-95. It must not be forgotten how the triumphal progress of Japan was arrested by the intervention of Russia, in alliance with France and Germany, and how the Mikado's Government received "a friendly hint" from the Three Powers to evacuate Manchuria and conclude peace with China. It was perhaps only through the prudence and firmness of the representatives of France that a conflict was at that time averted between Russia and Japan. The treaty of Shimonoseki was concluded; but, like the Russians after the war of 1878 and the Congress of Berlin, the Japanese have not forgotten how they were robbed of the fruits of their victories. . . .

All the resources of the Government and the country were then devoted to one object alone, viz.: the formation of an Army and Navy capable of conquering Russia, and of exercising preponderating power in the waters of the Far East; at the same time undertaking the rôle of instructors to the Celestial Empire, of protectors of its integrity and of fostering its interests; in fact of arriving at the supreme object, namely, that of putting the Yellow Race in a state of independence, driving Europeans out of Eastern Asia, and of obtaining command, like an Asiatic Great Britain, of all the seas and islands of the Western Pacific.

In public opinion, in the press, in the Army, the recollection of the contemptuous treatment of 1895, the ever-increasing growth of Muscovite influence in Manchuria and North China, the rapid construction of the Trans-Siberian Railway, the occupation and fortification of Port Arthur have fostered the hatred of the traditional enemy which Japan has encountered ever since she formed projects or evinced desire for expansion—*i.e.*, Russia. The war indemnity from the Chinese, nearly 940 millions of francs, was, for the most part, used for the re-organisation and augmentation of the Army and Navy. The naval and military programme of 1896, of which half has been completed, was to provide Japan with a homogeneous and entirely new fleet, and to furnish an Army of 12 divisions, in addition to a Guards' division and the Reserves. These preparations were ostensibly directed against Russia. For some time past the inevitable outbreak of war had been foreseen, and was expected to occur in 1902. The events in China in 1900, however (*i.e.*, the Boxer rising and the expedition of the Allied Armies to Peking) brought delay and some complication in the sequence of events; but it was an opportunity for the Japanese to show their strength and display their courage, which was often heroic, if somewhat theatrical. At the Tientsin Railway Station, when the English had retreated, they held their ground firmly, supported by our marines.

In the narrow limits of the islands of Japan, a population of nearly 44 millions is confined, increasing every year by half a million, and giving an average density of 140 inhabitants to the square kilometre—in some parts considerably more, as in the island of Kiu-Shiu. The Archipelago is far from sufficient to sustain such a mass of population; some parts, notably the greater portion of Hokkaido (island of Yezo), are hardly capable of cultivation, and are consequently but sparsely inhabited. It is thus an imperative necessity

for Japan to acquire some Colonies, to which the surplus of her population can emigrate, and which are capable of providing her with the rice and dried fish, which form her staple food. The need for Japanese expansion is thus explained. In the Pacific, Japan has turned her attention towards Hawaii, Samoa, and as far as the United States and Australia. Nearer home, the Japanese cast envious glances towards the Philippines, but one fine day found the Americans there instead of the Spanish, and so have had to give up all ideas of expansion in this direction. Similarly, in the Sandwich and other islands of the Pacific they have been forestalled by the United States. Australia closes its door to all immigration—America barely admits it. There only remains for the Japanese the Chinese Empire, already over-populated, where engineers and skilled mechanics can prosper, but where the labour is very cheap and the soil already too well cultivated to admit of the spreading of the surplus of the poorer population of the Japanese Archipelago. The Japanese have had their first experience of colonisation in Formosa, the sole result of their victories in 1895; but their somewhat violent and barbaric method of taking possession, without any regard for the customs and rights of the aborigines, has alienated the ancient population against the new comers. They are trying to repair their initial errors by organising the government of the island, by helping and encouraging the Christian missionaries, reckoning on their help towards early pacification; there is even a Japanese missionary among the workers in this self-interested evangelism. But the Japanese who clamour loudly for the "open port" on the Asiatic Continent appear to consider Formosa as privileged, now that they have obtained possession of it. A tax of 10 per cent. has been placed on all imports; the cultivation of camphor has been monopolised by the Government, which is arranging for the protection and care of the forests of camphor trees; the trade in opium, which was considerable, has been prohibited. All these measures have already compelled several English firms to give place to their Yellow rivals. The cultivation of tea, rice, and sugar-cane, particularly in the north-west corner, gives good results, and the Japanese settlements there are prospering. The Government devotes an annual subsidy of 15 millions of francs to the working of the coal mines and sulphur deposits of Ke-lung, to the extension of cultivation, to the establishment of settlements, and to public works, notably a railway, which is to traverse the island from north to south, and also harbour works at Ke-lung. But the fertile portions of Formosa are limited, and it is doubtful whether the island will "yield" in proportion to the amount that is being spent on it. But above all it forms an admirable strategic point, together with the valuable addition of the Archipelago of the Pescadores, to which Admiral Courbet attached so much importance. To the east, the sea that washes Formosa is much exposed to gales and disturbed by frequent typhoons, consequently all the sea traffic passes to the west of the island in the narrow channel which separates it from China, and which joins like the neck of an hour glass the two enormous globes of the Chinese Mediterranean.

Therefore, whoever occupies Formosa and establishes a fortified base there becomes master of the maritime routes to the Western Pacific.

The Japanese for some years past have been endeavouring to find in the peninsula, which is thrust forward, as if an outpost of Asia,

towards the islands of Japan, territorial scope for immigration and colonisation. A strait of only 200 kilometres breadth, and which is further divided into two portions by the island of Tsu-Shima, separates Japan from the coast of Korea; for ages past interchange of trade has taken place between the two countries. An excellent climate, similar to that of Japan, a fertile country inhabited by a supine race, who hardly cultivate it at all, an eastern coast plentifully endowed with harbours and inlets, a western coast with prosperous fisheries and fine rice fields, and a strategic position of the first order commanding the Gulf of Pe-chi-li and the China and Japan Seas, such are the advantages which the Japanese would find in the possession of Korea. The Japanese are numerous everywhere in the "Empire of the Morning Calm," more particularly in the treaty ports, where they carry on a quantity of small trades, and where a few hold important posts in commercial circles. But in the towns, as at the capital, Seoul, for example, the Japanese population constitute a turbulent section of the community, ready for any revolution or crime, such as the horrible assassination of the Queen, which has done so much harm to their prestige. However that may be, the interests of Japan in Korea are so vital that she cannot give up being the chief political Power in the peninsula, or at all events, of making certain that no other Power obtains ascendancy there.

The rich plains of Manchuria extend to the north of the broad salient of Korea, which the victorious Japanese traversed in 1894-95, and which they had begun to organise into provinces and districts, and where they hoped to find a marvellous country for expansion and colonisation. The master of Manchuria is but a short distance by land from Peking, and in a position to exercise decisive influence over the capital of the Celestial Empire.

Korea, Manchuria, and the preponderance of political influence in North China—such are the stakes in the game for which the diplomatists of Russia and Japan are playing. . . .

The alliance with England, which has done so much to foster the national pride of Japan, by including her in the ranks of the Supreme Powers, was concluded in 1902, but only holds good for five years. In case of war it guarantees Japan against the intervention of any other Power, and would be besides, in the event of a serious reverse to Japan, a last resource against a too powerful enemy, and the means of procuring, only with the tables turned, such intervention as, after the Chino-Japanese War, terminated so favourably for Russia.

## PART II.

### THE RUSSIAN EMPIRE.

Russia, essentially a Continental Power, requires an outlet to a sea, where neither man nor ice can obstruct her; but she does not aspire to the supreme command of the Pacific. The Russian, eminently fitted by his nature and his semi-Oriental blood to rule over the vast plains of Central Asia, does not seek his fortune on the ocean, but steadfastly adheres to the national policy of his Empire, and continues his progress to the shores of the Pacific as if towards the limits set by nature to his expansion. The Russians have at last found in Port Arthur a free port on an open sea, which they have been vainly seeking everywhere since the time of Peter the

Great. The Trans-Siberian Railway is to-day an accomplished fact, and St. Petersburg is now within 15 days of the Pacific. In proportion as Russia came into contact with a new world and new interests, her energies and activity have been more and more attracted towards the Far East. The territories that had been acquired with so much difficulty had to be put into a state of defence, the railway required traffic—in fact, the country had to be gradually “Russianised”; Port Arthur was fortified and made into a harbour fit for a fleet which is daily increasing, and includes some of the finest battle-ships the Russians possess; a graving dock is on the point of completion. Ta-Lien-Wan, now better known by its Russian name of Dalny, has become a fine modern town replete with all the stock-in-trade of a large commercial port. The routes of new railways and the sites of new settlements are being fixed. . . .

Manchuria, traversed by a Russian railway, guarded by Russian troops, is rapidly being transformed into a Russian province. A new Russia is springing up in farthest Asia. This fact was emphasised the day (12th August, 1903) when Admiral Alexeieff was nominated Viceroy of the Amur Provinces, responsible direct to the Tsar for all Russian policy in the Far East. From this day on it was evident that a part of Holy Russia had been transported to the Pacific, and that the double-headed eagle was not only the symbol of an idea, but the representative of a reality. In its irresistible progress towards the Pacific, the “Russian Iceberg” is met by a huge rock, viz., Korea, which has forced it to diverge into two separate lines of advance, the one terminating in the Gulf of Pechili, and the other at Vladivostok on the Sea of Japan. Compressed as in a vice between the two branches of the Trans-Siberian Railway and between the two great Russian ports, this country of 10 million inhabitants, seething with anarchy as it is, would have been an easy prey for Russia, had it not been coveted at the same time by the Japanese. The “Hermit Kingdom” remains absolutely passive between these two powerful neighbours, like the slaves that assist at the sales of which they are the object; neither the people nor the unfortunate Emperor Yi-Hong are capable of organised resistance; the people are too apathetic, the Government too feeble. Korea forms a field of operations for the Russians and the Japanese in their struggle for supremacy in Northern China and the Western Pacific. . . .

Korea is thus at the mercy of any Power that will seize it; but greater than the task of governing it, and greater than the benefits to be gained by its possession is the fact that it affords an incomparable strategic position, and it is this that makes the “Hermit Kingdom” so tempting a prey to both Japan and Russia. For Russia it is the natural limit to her Asiatic Empire, and without it she would find it a thorn in her side. Japan, on the other hand, once master of Korea and the Straits, and firmly established at Chemulpo, Mokpo, and Masanpo, would separate Vladivostok from Port Arthur, and divide the Russian Empire in the Far East into two portions. Again, the Russians, if installed in Korea, and therefore only a few hours’ distant from the Japanese coasts, would be no less a menace to Japan; they could close the country to immigration, and deny all hope of expansion in this direction to the Empire of the Mikado. Such are the present interests and situation of Russia and Japan on the shores of the Pacific. Either diplomacy must find a peaceful solution to the problem or force of arms will cut the knot!



## PART III.

## THE UNITED STATES OF AMERICA.

The appearance of the United States of America in the affairs of the Far East, which is for them the Far West, has been as rapid and as astonishing as the entry of Admiral Dewey into the Bay of Manila. Up to the last few years American citizens had plenty of interests in the Yellow World, but the United States had no policy—they did not intervene in the war of 1894-95, and in 1897 State Secretary Sherman told a French diplomatist that the United States had not a cent of trade with China, and that they would never send a soldier there. All this was suddenly changed from the day when, thanks to protective tariffs, American commerce was placed in a position to export its produce and to compete with English and German manufactures. It was directed towards the great markets of the future, to Asia and this world of the Pacific, which was now being unfolded. The amalgamation, by the enterprise of a far-seeing man, of two of the great Trans-Continental railway lines, the Northern Pacific and the Great Northern, hastened the progress of American commerce towards the countries of Asia. The question arose of finding freight for the two railway lines—trains going eastward easily obtained full loads with the agricultural products of the ranches of the west, cattle, corn, butter, etc., but the trucks returned empty to the Pacific. A company was formed to export to Asia wood from the Rocky Mountains, and those coarse cotton goods from Massachusetts, woven from the inferior quality thread which is extracted from the shorter cotton stalks; the Northern Chinese use these coarse materials largely for their pantaloons and hose. . . .

At the same time American arms opened up new channels for the commerce of the States; a single combat, resulting in the defeat of the Spanish Fleet, gave the victors a foothold in the very heart of Asia, in a magnificent position near the coasts of China, Japan, French Indo-China, Borneo, the Malay Archipelago, and Australia. The United States, which some months before had no interest in the affairs of the Far East, were now installed not only as a commercial Power of the first order, but also as a territorial and military Power. This gradual expansion ever westward across the Pacific is the keynote of the development of the United States. . . .

In his speech at Watsonville last May, President Roosevelt declared, amid the shouts of the Westerns, that the command of the Pacific was reserved for the United States, and a few days afterwards at San Francisco explained his meaning as follows:—"The geographical position of the United States in the Pacific is such as to ensure the command of it in the future to us, if only we grasp with sufficient firmness its inherent advantages. The sequence of events which gave us the Philippines was of a providential character. The best means of ensuring peace is by seeing that war will not find us unprepared. That is why the United States should be provided with a larger number of ironclads of the most modern type."

While biding their time for further conquests, the United States have already set the landmarks of their future Empire across the Pacific. Honolulu, in the island of Hawaii, which was annexed and made a portion of the United States in 1898, is 2,080 English miles from San Francisco; it is practically an obligatory coaling station for all steamers bound from China or Australia to the American ports or

British Columbia. The Samoan Islands occupy an excellent strategic position on the route from Sydney and Auckland to the American continent; they command the communications between British North America and Australasia, and between our Colonies of New Caledonia and Tahiti. Until 1899 the Archipelago was independent under the triple guarantee of England, Germany, and the United States, but in that year a treaty of division allotted the islands of Pango-Pango and Tutuila to the Americans. . . .

The Philippines, besides other advantages, will afford magnificent scope for colonisation; but the Americans, who came to these islands with the sole object of destroying the Spanish Fleet, seized the opportunity of replacing the defeated Spaniards, and found themselves opposed by a rebellious population radically unfitted to adapt themselves to the customs of their new masters. Even to-day the foothold of the Americans in the Philippines is not much more secure than was that of the Spaniards. . . .

The greatest obstacle to the development of these fertile islands is the want of labour; it has been said that if the Malay is the laziest of Orientals, the Filipino is the laziest of Malays.

China, it is true, with its millions of mortals seeking work, is a practically unlimited source of supply of cheap labour. "A Chinaman," writes Mr. Colquhoun, "will carry, running, a burden that four Filipinos will barely drag along between them." But the wholesale admission of this tenacious and prolific race would ruin the aborigines by monopolising all the trades and all the business; in fact, thanks to the Yankees, the Celestial and his half-breeds are only too numerous there already. The Americans are in difficulties for fear of the "Yellow Peril" on the one hand, and the want of labour on the other, and have been endeavouring to recruit in China labourers who will accept temporary contracts, returning to their own country on the termination of their engagements. When all is said and done, the Philippines, with the wonderful Gulf of Manila, afford an incomparable base of operations for American trade and influence in the China Seas. American trade has in the last few years increased by leaps and bounds in Asia, and more especially in China. Europeans meet with American competition in all great railway or mining enterprises; before 1900 the revenue of the United States derived from the Far East was nearly 200 millions of francs—it has since become considerably more. In proportion as China was opened up by railways, and trade and industry consequently increased, so the demand for steel, tools, machinery, etc., became greater and greater, which the United States were in a position to furnish at the cheapest price. . . .

Americans are the concession-holders of most of the important enterprises, such as the railway from Chemulpo to Seoul in Korea, since sold to the Japanese, the electric tramways of Seoul, a gold mine, etc.

The opening of the Panama Canal will give a decided impetus to the growth of American influence in the Pacific and the Yellow countries. . . .

The Americans in possession of the Panama Canal will hold one of the doors of the great ocean, one of the entrances to that great maritime highway which will encircle the globe, and to which the Suez Canal is another. . . .

The new route will facilitate access to the western coast of the two Americas, but it will not deprive Suez of anything, nor will

it deflect from its usual route the traffic to India, the Far East, or even Australia. The distance from Liverpool to Sydney, Shanghai, or Yokohama is less by Suez than by Panama, and, moreover, the steamers that follow the old route practically hug the coast the whole way and find freight and coal all along, whereas the new route traverses the Atlantic and Pacific without coming across any land other than Central America. The completion of the Panama Canal will not diminish the importance of the Mediterranean or the Suez Canal, but it will increase enormously the activity of the western ports of America, and will put New Orleans and New York in touch with the Pacific and the markets of the Yellow World. The naval strength of the United States will be doubled, and the Canal is thus an instrument of Imperial dominion, and in assuring supremacy in the Pacific to the Star Spangled Banner, it will realise the audacious prediction of President Roosevelt, whose policy with regard to the Isthmus is the logical sequence of his speeches at Watsonville and San Francisco.

The Clayton-Bulwer Convention, in reserving to the British Government a right of control on the future Canal, and, further, the concession obtained by Mons. Ferdinand de Lesseps for the French company placed somewhat of a barrier on the hopes of the Americans. England, at the critical period when her forces were engaged in South Africa, consented, in order to please "Uncle Sam," to renounce her privileges and to sign the new Hay-Pauncefote Convention, whereby the right to exercise exclusive control over the Canal was to be handed over to the United States. The financial and political catastrophe, alas! so well known in France under the name of Panama, makes the accomplishment of the undertaking by the French, with French capital, practically impossible. An attempt made by some influential Russians to obtain a concession of 6 hectares along the edge of the Canal proved abortive, and the last remaining chance was lost of internationalising the Canal or of preventing it from becoming an exclusively American highway.

Several months after the battle of Cavite, the English philosopher, Mr. Benjamin Kidd, said at a dinner in New York:—"To my mind the first gun fired by Admiral Dewey in the Bay of Manila is the most important historical event that has occurred since the battle of Waterloo." To which Professor Franklin H. Giddings replied:—"I feel constrained to differ from our distinguished guest in his appreciation of the battle of the Bay of Manila. In my opinion it is the most important historical event that has occurred since Charles Martel put the Mussulmans to flight in the year A.D. 732." Sea Power! The Empire of the Sea. It is the Empire of the World!

The Anglo-Saxon, represented by the Americans, will be confronted on the shores of the Pacific with the power of the Slav; the Russian railways will perhaps in the near future be the only dangerous competitors with Yankee enterprises in the development of Eastern Asia.

The Americans have supplanted the Japanese in Hawaii, but they find them as rivals in China, and perhaps they will one day find them as rivals in the Philippines. Will Japan succeed in remaining a great Power compressed as she is with the expansion of Russia on the one side and of America on the other? This is certainly one of the most interesting problems of the future.

*(To be continued.)*

## A BRIEF HISTORICAL SKETCH OF THE IRISH INFANTRY REGIMENT OF DILLON AND THE IRISH STUART REGIMENTS IN THE SERVICE OF FRANCE, 1690-1791.

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*Continued from February JOURNAL, p. 197.*

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ON the 16th August (1705), as at Cremona, Hochstaedt, and at Luzzara twelve months previously, the French allowed themselves to be again surprised by Prince Eugene, who was anxious to pass the Adda, either to enter the Milanese, or to divide the French forces, and attack them in detail. With a view to guarding the passages, Vendôme left the Grand Prior with 20,000 men at Cassano, while he himself, with a considerable force, guarded the left bank of the river, moving in a direction parallel with that of the Prince on the opposite bank, and thwarting all his efforts to pass it. Near Ivezza, in the Brianza, Eugene, making a feint to pass, constructed a bridge of boats under cover of a heavy fire from his guns, which commanded the opposite bank. Eugene's real object, however, was to surprise the force left at Cassano, so as soon as Vendôme had drawn up his troops on the opposite bank to resist his crossing, he withdrew, burning his pontoons, and moved towards the Oglio, as if to invade the territory of Mantua. Vendôme sent orders to the Grand Prior to move his army to Rivalto to intercept the Imperialists; but before the order was carried out, the Imperialists in order of battle were discovered advancing on Cassano. The ground on which the French were encamped seems to have been badly selected, as the army, with all the baggage train, was crowded together on a small island some half a mile in length and less than a quarter in depth, formed between the Adda, the Créma Canal, which runs nearly parallel to the river, and some of the numerous canals cut by the peasantry to carry off the waters of the river when in flood, and to irrigate their fields. Communication with the town of Cassano was by means of a narrow bridge over the Adda, the *tête du pont* being defended by a redoubt, while a second bridge crossed the canal.

Prince Eugene attacked with his usual impetuosity, and the French, taken completely by surprise, hampered by their wagons and baggage, were in a state of hopeless confusion; while in order to extricate themselves from the tight place in which they found themselves, it was necessary to execute a change of front under a very heavy fire. For a time the brunt of the fighting fell upon the Marine Brigade, with which was Dillon's, who formed the left of the French line, and upon Bourke's Brigade, composed of Galmoy's, Berwick's, Bourke's, and Fitzgerald's Regiments, in the centre, and it was only the heroic tenacity of the Irish troops which saved the army from the complete disaster which, with the Adda

behind it, if beaten must have befallen it. Attacked by superior forces on front and flank, the two brigades held their ground without yielding a foot, and succeeded in holding the Imperialists in check, eventually compelling them to fall back. This gave Vendôme, who had arrived on the scene, time to restore order, and by his great personal exertions, during which twelve of his staff were killed beside him, and his own horse shot under him, he succeeded in bringing the rest of the infantry into action, and, sword in hand, on foot, he himself led them forward to the attack. After a desperate struggle lasting five hours, the Imperialists were finally driven back. The battle was the most murderous fought during the whole of the Spanish War of Succession; some 50,000 men (French and Imperialists) were engaged, and of these over 16,000—more than a fourth—were killed or wounded, the heaviest losses being on the side of the Austrians, many of whose muskets and powder were rendered useless through being wetted while crossing the canals to dislodge their opponents. Vendôme himself had a narrow escape: he had five bullets through his clothing, and but for the devotion of one of his officers, who threw himself in front of him when one of the enemy was taking deliberate aim at him, would have been killed. Dillon's lost sixteen officers and more than 150 men placed *hors de combat*. Vendôme, in his despatch to the King again recorded his high opinion of the Irish troops:—"Les Irlandais," he wrote, "ont combattu avec une intrépidité et une valeur exemplaires, et c'est une troupe sur le zèle et le dévouement de laquelle on peut compter dans les circonstances de guerre les plus épineuses."<sup>1</sup>

As a reward for the brilliant part played by Dillon's at Cassano, the King added two senior lieutenants to each company, while several others were attached *à la suite* on full instead of their previous half-pay.

Both sides claimed the victory; but as Eugene failed to dislodge the French and Vendôme successfully prevented him from effecting a junction with the Duke of Savoy, the honours of the day may fairly be claimed by the latter; still, as the Prince fell back in good order to his entrenched camp at Treviglio, only three miles from the town, and maintained himself there for some time, he, on his side, could claim that he had not been defeated.

Vendôme, with the Army of Lombardy, next went into camp at Rivolta, near Agnadello, where they remained until the 11th October. During the next two months the Marshal manœuvred his force so successfully that he forced Eugene to repass the Oglio first, and then the Chiese, Vendôme finally pursuing him to the foot of the mountains to the north of Brescia, into which he retired, while the French Army on the 16th December went into winter quarters between the Oglio and the Lake of Gardia, Dillon's being stationed at Marmirolo on the Mincio.

In April (1706) Vendôme assembled his Army in Lombardy, round Castiglione, and on the 17th of that month he attacked the Imperialists, who were, in the temporary absence of Eugene, under the command of the Count de Reventlow, and were strongly entrenched on a line of small hills between Montechiaro and Calcinato. The French infantry, marching with arms at the shoulder as on parade, reached the foot of the heights, which they then stormed at the point of

<sup>1</sup> Historique du 87<sup>e</sup> Régiment d'Infanterie. Première Partie. Ancienne Monarchie.—Régiment d'Infanterie Irlandaise de Dillon (1690-1791).

the bayonet, without firing a shot, in spite of the heavy fire poured upon them by the defenders. The losses of the Dillon Regiment, which formed the centre of the 1st line, were on this occasion small, although they captured two guns and a colour. The Imperialists lost about 6,000 men killed, wounded, and prisoners, six guns, several colours and the largest part of their baggage. The other Irish regiments engaged on this occasion were Galmoy's, FitzGerald's, and Bourke's, while among the general officers in the first line, of whom Vendôme wrote to the King as having done wonders, was the Hon. Arthur Dillon.

Count Reventlow fell back into the Trentino, where he soon received reinforcements and re-organised his forces, while Vendôme echeloned his troops so that he could watch the Adige from the Lake of Gardia to Carpi.

In June Vendôme gave up the command of the Army in Italy in order to succeed Marshal Villeroy in command of the Army in Flanders, the latter officer having been recalled after his disastrous defeat at Ramillies. From the date of the Duke's departure nothing but ill success followed the French arms in Italy. Prince Eugene, soon after Count Reventlow's defeat, reassumed the command of the Imperialist Army, now largely reinforced, and little by little the French had to give up without fighting, first the line of the Adige, then that of the Mincio, and finally to fall back on the Po. On the 29th August the Army arrived under the walls of Turin, to which the Marshal de la Feuillade had laid siege; and here on the 6th September it was attacked by the Imperialists, who stormed the French entrenchments, utterly defeated them, and raised the siege of this important town. The Irish Brigade does not appear to have been present at this defeat; but was forming part of a small force consisting of 25 battalions and 27 squadrons, under the command of the Count de Médavi, operating in Lombardy against the Prince of Hesse, whom, on the 9th September, the Count completely defeated at Castiglione, with a loss of 4,500 men, thirty-three colours, and all his guns and baggage. The Irish Brigade formed Médavi's right wing, and were under the command of the former commander of the Dillon Regiment, Major-General the Hon. A. Dillon, who so distinguished himself that the Count attributed the victory in the main to him and his Irish soldiers, the Count in his despatch to the King speaking of him as:—"A foreigner of merit and of valour, who on every occasion has served your Majesty well." As a reward for his services Dillon was promoted to lieutenant-general. But this victory could not retrieve the disaster of the 6th, and the Army fell back, first to Pignerol, finally evacuating Italy altogether. Dillon's re-crossed the Saint Bernard, and after great hardships went into winter quarters in December at Antibes.

At the end of March (1707) the Regiment was ordered to Catalonia, at the express request of the Duc d'Orléans, who, appointed to the command of the Army in Spain, had stipulated that the four Irish Regiments which had so distinguished themselves in Italy should be placed under his orders. On arrival at Pampeluna, it was first ordered to Almanza, but arrived too late to take part in the great victory, which was won at that place by the Duke of Berwick over the combined English, Dutch, and Portuguese forces,

<sup>1</sup> History of the Irish Brigades in the Service of France.—By J. C. O'Callaghan.



under the command of the Earl of Galway, whose losses amounted to 3,000 killed, 10,000 taken prisoners, all his guns with 120 colours being also captured. The Irish who fought in this battle under the Duke were the 2nd Battalion of the Regiment of Berwick and four squadrons of O'Mahony's Regiment of Dragoons.

The summer was spent in the North of Spain; but in the autumn, attached to the brigade of the "Vieille-Marine," it took part, under the Duke of Orleans, in the siege of Lerida, which was garrisoned by a mixed force of English, Dutch, and Portuguese, under the command of the Prince of Hesse-Darmstadt. On the 4th October the trenches were opened, and Bourke's and Dillon's were the first to do duty in them. It was expected that the town would have held out for some time, but it was carried by assault on the 12th October, when the bulk of the garrison retreated to the citadel, which, however, had to capitulate on the 11th November. The Regiment next took part in the capture of the small fortress of Moraleja, after which, in December, it went into winter quarters.

In March (1708) Lieut.-Colonel Edward Dillon, who had commanded the Regiment during the previous six years with such distinction, died at Saragossa, and was succeeded by Major Gérard Lally. In the spring of 1708 the French Army, under the command of the Duke of Orleans, consisted of 36 battalions and 55 squadrons. The French Irish Regiments attached to this force were Dillon's, Bourke's, and two battalions of Berwick's; Lord Galmoy's and FitzGerald's having been transferred to the French Army operating in Flanders. On 12th June the Duke invested the strong fortress of Tortosa, which capitulated on the 11th August. At the end of September the Regiment took part in the assault and capture of the town of Barbacena. This was followed by an attempt to seize the town of Valentia by a *coup de main*, which, however, failed; but as a set-off, Alicante was stormed in December, the castle, however, holding out until the spring. In all these operations, Dillon's and the other two Irish Regiments behaved with their usual dash and gallantry. In December the Regiment went into winter quarters at Zamorra.

In April (1709) Dillon's proceeded to Moraleja, and in mid June moved on Lerida, where it arrived in the middle of July; and with the Regiment of Clairefontaine and a small force of cavalry formed a small force which, under the command of the Spanish Major-General Don Miguel Pons, attacked, on 6th August, six German regiments, under General Stahremberg, which were strongly entrenched on some steep heights commanding the bridge of Montannana over the river Segra. Dillon's, as was usually the case, advanced to the assault with bayonets at the charge and without firing a shot, and the Germans were driven from their position, with a loss of some 700 killed and wounded, their baggage and six colours remaining in the hands of Dillon's, who were enabled to fit themselves out completely anew, which they wanted badly. In his report of the action to Marshal de Besons, Don Miguel Pons, who had been much struck by the reckless bravery displayed by the Regiment, thus wrote:—"Les Irlandais paraissaient vouloir manger les rochers qui les empêchaient de se mêler avec l'ennemi."<sup>1</sup> This

<sup>1</sup> Historique du 87<sup>e</sup> Régiment d'Infanterie. Première Partie. Ancienne Monarchie.—Régiment d'Infanterie Irlandaise de Dillon (1690-1791).

action was the conclusion of the Regiment's fighting in Spain, for in October it was ordered to return to France, where it went into winter quarters at Ornans, in Franche-Comté.

In April (1710) the Regiment was moved to Bésançon, and joined the Army of Dauphiné, under the Duke of Berwick, who was guarding Savoy and the passes of the Alps, which he did so effectually that he successfully foiled all the efforts of the Allies to penetrate into France.

During 1711, Dillon's, Bourke's, and Berwick's still continued under the Duke of Berwick, who, however, from the inferiority of his forces, found himself obliged to abandon Savoy and confine himself to guarding the passes of the Alps into Dauphiné. The three Irish Regiments, under their old commander, Lieut.-General Dillon, guarded the passages of the Treve and the Arc. By his vigilance, activity, and address, the Duke covered the French provinces along the Rhone from invasion, and during 1712 he so successfully manœuvred against the Imperialists and Piedmontese that although they were double his numbers he forced them to repass the Alps by the little St. Bernard and Mount Cenis, and recovered the whole of Savoy. In all these operations, which involved great hardships with extremely difficult mountaineering work, the Irish Regiments took, as usual, a distinguished part. The winter of 1712-13 the Regiment spent at Rochette, close to Chambéry.

In 1713 the Treaty of Utrecht (11th August, 1713) brought to a conclusion the hostilities between Louis XIV. and the Duke of Savoy, on the frontiers of Italy; but the Emperor, refusing to accede to the general peace, and having again collected his forces along the Rhine, under Prince Eugene, to continue the war, Louis placed a powerful Army, under the Marshal de Villars, assisted by the Marshal de Besons, in order to bring him to terms, and this Army Dillon's was now ordered to join.

With an effective strength of 580 officers and men, besides several supernumerary officers, the Regiment, on its arrival in Germany, joined the Army under the command of Marshal Villars, who, holding Prince Eugene in check at the lines of Etlingen and about Muhlberg, laid siege in June to the strong and well-garrisoned fortress of Landau, which, after fifty-six days from the time of opening the trenches, he forced to capitulate. Dillon's Grenadiers took part in many of the attacks during the early days of the siege, and in one of the demi-lunes the company lost three officers, and only fifteen of the rank and file remained in the ranks.

On the night of the 4th-5th August the Grenadier Companies of the four Irish Regiments (Bulkeley, Dillon, Dorrington, and Berwick), supported by the pickets of the same corps, assaulted a work called the "Pâté," which covered the sluice gates of the moat. The besieged having opened these before the supporting pickets had time to reach the work, the four Grenadier Companies found themselves alone exposed to the full fire from the rampart, their retreat being cut off by the water; but entrenching themselves as best they could, they held on in their critical situation for nearly forty-eight hours, before assistance could reach them. The capture and retention of this work so weakened the defence, forming as it did an important stepping-off place for the besiegers for their further advances, that, on the 16th August, the commandant, Prince Alexander of Wurtemberg, capitulated.

Prince Eugene, though unable to attempt the relief of Landau, and obliged to remain in his lines at Etlingen, had caused strong entrenchments to be thrown up in the difficult country round the fortress of Fribourg; these were held by General Vaubonne with some 17,000 men, and the works were of so formidable a nature that it was believed a much smaller force than that under Vaubonne would be able to hold them against any force Villars could bring against them. This, however, did not prove to be the case. When attacked by the French Marshal on 20th September, the Imperialists made but a feeble resistance, and the whole line of works were captured with but trifling loss to the attackers. At the end of September, Villars was able to lay siege to Fribourg, which, after a stubborn defence, had to capitulate on the 20th November. During the siege, Dillon's formed part of a force of twelve battalions, under their old colonel, Lieut.-General Dillon, whose duty it was to cover the siege on the Offenbourg Valley side. The Regiment took its full share of duty in the trenches, and for the second time in a few months its Grenadiers were almost decimated in the great assault on the 14th-15th October, which cost the French more than 1,500 killed alone.

The capitulation of Fribourg brought the war with Austria to an end, the Peace of Rastadt being signed on the 7th March, 1714.

*(To be continued.)*

## JAPANESE HOSPITAL-SHIPS.

By Dr. GEORGES VARENNE, Surgeon of the French Navy.

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Translated by permission from the *Archives de Médecine Navale*  
By Fleet Surgeon C. MARSH BEADNELL, R.N.

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IN the course of her present military operations, Japan is utilising a system of removing the sick and wounded, the organisation and *modus operandi* of which are well worth the attention of all who appreciate the indispensability of such a service in modern warfare.

The following article will give the reader an idea of the degree of perfection reached by the Japanese hospital-ships, and he will, no doubt, realise that the marvellous faculty of assimilation, characteristic of the Japanese race, is blended with an originality and initiative which European nations may well envy.

The removal of the sick and wounded from the scene of action to the Japanese hospitals is undertaken by two bodies:—

1. The medical department of the Japanese Navy.
2. The Japanese Red Cross Society.

### STATE HOSPITAL-SHIPS.

The State employs two hospital-ships, the "Kobé-Marû" and the "Saiko-Marû." These two sister-ships are of English construction, have a displacement of 3,000 tons, and a speed of 15 knots.

They sail under the Japanese mercantile flag, and fly the Geneva Red Cross at the main-mast. These vessels, which in peace time belong to the great Nippon Yusen Kaisha Steamship Company, are, in times of war, provided with a special complement; they retain their own staff and merchant crew for the purpose of navigating the ship and carrying on the daily routine in connection with it; but they receive in addition a medical *personnel* thus composed:—

*Personnel*.—One Principal Medical Officer (Gouni-Sho-Kan);  
One Fleet Surgeon (Gouni-Dai);  
One Staff Surgeon (Gouni-Tchu);  
Three Surgeons (Gouni-Sho);  
Two Assistant Surgeons (Gouni-Kohosōi);  
Two Dispensers (Yakous);  
Thirty Sick-Berth Attendants.

On board these ships there are no women-nurses, whereas the Red Cross Hospital-Ships, which we will describe further on, are supplied with a greater number of female than male nurses.

*Arrangements*.—Sick and wounded officers are quartered in rooms, each containing, as a rule, two bunks. Ordinary cases are placed in

bunks, supported by iron braces and arranged one above the other in two rows, on large and well ventilated decks. The bulkheads are covered with a paint called *Japonaise*, which can be washed with boiling water. In addition to these quarters, there is a room set apart for the isolation of infectious cases, and a cabin for mental cases.

All these compartments occupy the after-portion of the deck, and a fraction of the mid-ship portion. Forward, are situated the quarters of the nursing staff, a steam laundry, a large disinfecting stove, and a freezing chamber. In the central part of the deck will be found the operating theatre and dressing room, both well lighted by large port-holes. The walls are coated with white enamel, the instruments are of the latest and best pattern.

Many of the surgical instruments are of Japanese construction, though all are copies of French and German ones. The whole of this department, like the rest of the ship, is kept scrupulously clean, in a manner essentially Japanese. The dressings are almost all of Japanese make, as well as the drugs, though a few of these latter are procured from Germany.

Close to the operating theatre is a laboratory, completely equipped for radioscopy and sciagraphy. Constant use of this laboratory has been made since the outbreak of the war, and we need not insist upon the innumerable services, which, in several circumstances, radioscopy has rendered to surgery.

Upon the upper deck is situated the laboratory of pathological anatomy and bacteriology, a well lighted chamber containing a very complete stock of instruments, also microscopes of French or German make. Finally, upon this deck are the officers' quarters, ward-room and accessory rooms (spirit and provision rooms, kitchens, etc). The store-rooms and other compartments having no particular bearing on this subject, need no description.

*The Sick and Wounded.*—A hospital-ship of this type is able to receive a maximum number of sick and wounded as follows:—

Officers, 30.

Ordinary cases, 200.

Infectious cases, 80.

The sick are kept in a condition of irreproachable cleanliness, and are fed in a manner that differs but little from the feeding of the sailors of the Japanese Navy, except, of course, in the case of those on special diet. The State hospital-ships have been in constant use since the commencement of the war, and the surgeons of the Japanese Navy are unanimous in extolling both their utility and their splendid organisation. They attribute to these sources of immediate medical relief the very considerable lowering in the percentage of mortality amongst the sick and wounded of their armies. They are furthermore aided to a considerable degree in their arduous task by the hospital-ships of the Japanese Red Cross Society, concerning which we shall now say a few words.

#### JAPANESE RED CROSS.

Twenty-eight years ago, in the course of the civil war, some Japanese philanthropists founded, for the purpose of aiding the wounded, a society which ultimately adopted the articles of the Geneva Convention and became known as the Japanese Red Cross Society. At

the present time this society has been brought up to the highest pitch of organisation. It is placed under the honorary directorship of Prince Kiven-In, and under the effective presidency of Count Sano. Its members are divided into four categories:—

1. Members who have given a donation of 1,000 yen to the Society.
2. Members who have given a donation of 250 yen to the Society.
3. and 4. Members who have given a donation of 25 yen to the Society, or an annual subscription of three yen for ten years.

Members of the different classes are granted medals and distinctive badges; foreigners are permitted to join the Society. The total number of members, which 28 years ago amounted to 38, is at the present time 920,000. The total capital is 7,900,000 yen; the total annual assessments are 2,310,000 yen. The sanitary departments of the Society are subdivided into 110 companies, each company comprising 4 surgeons and 40 male and female nurses. The total personnel employed by the Japanese Red Cross in ambulance and health departments on board ship, is 3,099, of whom 1,886 are female nurses, and 750 male nurses. The Society has, in addition, founded 320 University scholarships, to enable young men of scanty means to prosecute their medical or pharmaceutical studies, on the understanding that they are afterwards enrolled in the Red Cross corps. The Japanese are justly proud of the good services rendered by this Society. Foreigners, who have recently been to Japan, and who have seen the ambulances organised by it, declare that the sick in them meet with admirable treatment.

*Red Cross Hospital-Ships.*—Two hospital-ships, the “Hakuai-Marū” and the “Kosai-Marū,” are, at the present time, employed by the Japanese Red Cross Society.

These vessels, which also belong to the Nippon Yusen Kaisha Company, have the same characteristics and almost the same internal economy as the “Kobé-Marū” and the “Saiko-Marū.” It has, nevertheless, been stated by a Japanese Army surgeon, who has seen and compared the two services, that the State vessels are to be preferred. Be that as it may, the Red Cross hospital-ships have already given a good account of themselves in the Chino-Japanese war.

In the course of the operations now going on, they have rendered yeoman's service in carrying on an almost continuous to-and-fro transport between the military bases and the hospitals in Japan.

We had the opportunity of paying a visit to the “Hakuai-Marū” at Chemulpo, on 2nd March, 1904, when she came to that port for the purpose of removing some wounded from the shore-hospital to the Japanese hospital at Matsuyama. The ship was exquisitely clean, and the work was carried on without a hitch.

The wounded Russians, some of whom were in a most critical condition, were looked after with the greatest care.

The personnel of the Red Cross hospital-ship includes:—

- One Fleet Surgeon.
- Two Surgeons.
- Two Assistant Surgeons.



The Foreign Office appoints an officer to be in charge of the administration, and probably, of the actual management of these vessels.

Lastly, 40 male and female nurses do the work of the wards.

The navigation and care of the ship are entrusted to the complement she possessed in peace time. These ships, which in March came to Chemulpo to fetch away the sick and wounded, have, since then, skirted the coast line, working hand-in-hand with the Army.

The naval hospitals, into which the different ships discharge their wounded, are situated at Matsuyama, Yokosuka, Kuré, Sasebo and Maizuru. These hospitals belong to the medical department of the Navy; the medical officers were formerly trained in a special school, but are now chosen from amongst those medical men who have first studied in Japan and afterwards graduated in England or Germany.

It would be interesting to know exactly what lessons have been furnished by the present campaign to war-surgery. Unhappily, with the exception of photographs of doubtful utility published in some magazines, we have not been able to procure any enlightenment on this subject, the Japanese doctors showing great reserve in answering questions. At the same time, they acknowledge that their Army has suffered from cold, and paid a tribute to typhoid fever, and above all to beri-beri. A surgeon in the Japanese Navy assured us that kakké had absolutely disappeared on board the Imperial ships since the men had been provided, in lieu of the ration of rice, with a mixture which is quite as nutritious and perfectly harmless, to wit, barley and rice. The Army, on the contrary, not having adopted this empirical method, is still much troubled with kakké.

Such are the few facts which we thought would be interesting to record, regarding the administration of the Japanese hospital-ships during the operations of the present war.

## NAVAL NOTES.

HOME.—The following are the principal appointments which have been made: Captains—F. A. Warden to "Cressy"; H. H. Stileman to "Vindictive"; C. E. Anson, M.V.O., to "Dido"; E. F. B. Charlton to "Hecla"; H. M. T. Tudor to Command of Gunnery School, Sheerness; J. Startin to "Commonwealth"; C. E. Madden, M.V.O., to be Naval Assistant to Controller of the Navy; C. H. Adair to "Vengeance"; E. R. Le Marchant to "Nile"; H. V. Elliott to "Bacchante"; M. H. Smyth to "Research"; C. Tower to "Eclipse"; R. F. Phillimore to "Renown"; H. W. Savory to "Diadem"; E. R. Pears to "Argonaut"; H. A. Warren, M.V.O., to "Hannibal"; A. P. Stoddart to "Cæsar"; A. D. Ricardo to "Empress of India"; A. G. Tate to "Hindustan." Commanders—H. Orpen to "Pandora"; F. E. Massy-Dawson to "Hermes"; L. de W. Satow to "Latona"; W. S. Bowman to "Sphinx"; L. J. MacHutchin to "Assistance"; C. F. Lambert to "Sapphire"; R. E. Benson to "Imogene"; E. H. F. Heaton-Ellis to "Sentinel"; A. H. Williamson to "Amethyst."

His Majesty the King proceeded to Portsmouth on the 27th ult. to honour Rear-Admiral H.S.H. Prince Louis of Battenberg, Commanding the 2nd Cruiser Squadron, with a visit on board his flag-ship, the first-class armoured cruiser "Drake." His Majesty dined and slept on board the "Drake," and the next forenoon made a close inspection of the ship and her ship's company, returning to London in the afternoon. The 2nd Cruiser Squadron, consisting of the first-class armoured cruisers "Drake," "Cumberland," and "Berwick," under the command of Prince Louis, left Spithead on the afternoon of the 1st inst. for Gibraltar, where it will join the flag of Vice-Admiral Sir W. H. May, K.C.V.O., Commanding the Atlantic Fleet.

A notable event occurred at Plymouth last month, when Sir E. Seymour, G.C.B., O.M., the Commander-in-Chief, hoisted, on the 20th ult., the Union Jack at the main, on promotion to the rank of Admiral of the Fleet; he will continue to fly the Union flag until relieved by Vice-Admiral Sir L. Beaumont, K.C.B., K.C.M.G., on the 20th inst., who then takes over the command.

The new first-class battle-ship "King Edward VII." flying the flag of Vice-Admiral Sir W. H. May, K.C.V.O., left Plymouth on the 25th ult. for Gibraltar, where she arrived on the 1st inst.; Sir W. May immediately took over the Command of the Atlantic Fleet from Vice-Admiral Lord Charles Beresford, K.C.B., who left for England in the "Cæsar" the same afternoon, arriving at Spithead on the morning of the 5th inst. Lord Charles Beresford struck his flag the same afternoon, and the "Cæsar" paid off on the 7th inst., being re-commissioned the following day as the flag-ship of Rear-Admiral C. J. Barlow, D.S.O., Second-in-Command of the Channel Fleet, the officers and crew of the "Royal Oak" turning over to her.

The "King Edward VII." entered the new "King Edward" dock at Gibraltar on the afternoon of her arrival, a notable event in the annals of the Rock, as she is the first battle-ship to enter one of the new graving docks. The recent steam trials of the ship supply material for comparison between the water-tube boilers of the ship and the cylindrical boilers with which she is also fitted. At one-fifth of her power the Babcock and Wilcox boilers

gave 66·4 revolutions and 3,759-I.H.P., with a coal consumption of 174 lb. per I.H.P. per hour. The corresponding figures for the cylindrical boilers were 65·2 revolutions, 3,634-I.H.P., and 1·8 lb. coal consumption. At full power the water-tube boilers gave 198 revolutions, 7,510-I.H.P., and 1·67 lb. coal consumption; while with the cylindrical boilers the readings were:—190 revolutions, 6,686-I.H.P., and 1·88 lb. coal consumption. The result of these trials is to show clearly the inferiority of the cylindrical boiler, and will probably prove the death-knell of any further attempts to bolster up that now obsolete type of steam generator.

The first-class battle-ship "Hannibal" has been withdrawn from the Atlantic Fleet, where her place will be taken by the new first-class battle-ship "Commonwealth," which is to be commissioned about the end of the present month; the "Hannibal" paid off at Portsmouth on the 27th ult., commissioning on the following day for service in the Channel Fleet, where she takes the place of the "Empress of India." The first-class battle-ship "Royal Oak," flying the flag of Rear-Admiral C. J. Barlow, D.S.O., paid off on the 7th inst. at Portsmouth, her officers and ship's company commissioning the "Cæsar," the late flag-ship of the Atlantic Fleet, the next day; while the "Royal Oak" also re-commissioned on the 8th inst. as one of the ships of the Chatham Reserve Division. The first-class battle-ship "Vengeance" has been ordered to Colombo from China, where she is to meet the "Barfleur," which left Plymouth on the 24th ult. with a new crew for her; the "Barfleur" will bring back to England from Colombo the old crew of the "Vengeance," who will turn over to her at that port. During the absence of the "Barfleur," Rear-Admiral Robinson's flag, in command of the Devonport Reserve Division, has been temporarily transferred to the "Empress of India."

The second-class cruiser "Dido" paid off at Chatham on the 27th ult., and recommissioned the following day for a further term of service with the Channel Fleet.

The third-class cruiser "Diamond" commissioned on the 7th ult. for service on the North America and West Indies station, and left on the 20th ult. for her destination. The third-class cruiser "Fearless," from China, paid off on the 8th ult. at Portsmouth. The third-class cruiser "Sapphire" was commissioned on the 31st January for service as flag-ship of the Rear-Admiral Commanding the Torpedo and Submarine Flotillas, and Rear-Admiral A. L. Winsloe, C.V.O., C.M.G., has transferred his flag to her.

*Belleville Boilers.*—In spite of their condemnation by the Boiler Committee, the Belleville boilers obstinately refuse to live up to the sentence passed upon them, and the continued reports, which are being received from the ships abroad, which are fitted with them, conclusively show on what utterly insufficient grounds this condemnation was passed. Everything goes to show that not only is no difficulty now experienced in getting more than the designed I.H.P. out of ships fitted with them, but that the speed attained on the original full-power trials is often surpassed, while the coal consumption is materially less than in the old cylindrical-boilered ships. The reports of the last full-power trials of four of the battle-ships on the China station, the "Glory," "Albion," "Ocean," and "Vengeance," and of the two large protected cruisers, "Amphitrite" and "Andromeda," furnish fresh proof of this. The battle-ships were designed to have a maximum speed of 18·25 knots, but on this occasion they did respectively as follows:—18·7, 18·6, 18·83, and 19·1; so that the least successful of these ships exceeded her

designed speed by .85 of a knot. In the case of the two cruisers, the "Amphitrite" was designed for a maximum speed of 20.75 knots, but on this occasion realised a speed of 21.39 knots; and the "Andromeda," designed for 20.25 knots, just failed to reach that speed by .15 of a knot, owing to the foul condition of her bottom. It was calculated that this foulness caused a loss of at least a knot and a half, and as the power developed was 1,000-H.P. in excess of that obtained on the official full-power trial, we may assume that, given a clean bottom, the ship would have exceeded her "legend" speed by at least a whole knot—perhaps a little more. All these ships—except the "Andromeda" and "Vengeance"—have been in commission three years or upwards, so the return is valuable as showing what practice and continuous training in a ship will do.

*The Navy Estimates.—Statement of the First Lord.*—The First Lord's "Statement explanatory of the Navy Estimates, 1905-1906," issued as a Parliamentary paper [Cd. 2402], is as follows:—

The Estimates for 1905-06 amount to £33,389,000, as opposed to £36,889,000 for the current year. This reduction is mainly accounted for by reductions on Votes 8 and 9, which are due to a decreased liability for new construction and to a decreased liability for repairs.

The decreased liability for new construction is due to the fact that the liability on the ships at the present moment under construction is not so great as was the liability on those under construction a year ago, and to the fact that the payment for the "Triumph" and "Swiftsure," bought from the Chilean Government, does not recur. The decrease in the liability for repairs is due to the policy, explained in my memorandum of 6th December last, of eliminating from the Navy, as far as possible, all ships which would be of comparatively small fighting value in time of war, and to the fact that the arrears in the repairs of the Fleet have been overcome. It is due to the late Controller, Rear-Admiral Sir William May, K.C.V.O., to say that I do not believe the Fleet has ever been in a more perfect state of repair than it is at the present moment.

The logical consequences of the policy explained in my memorandum of 6th December last have also affected other parts of Vote 8, Vote 2, and other votes in an economical direction.

#### ADMINISTRATION.

No important changes have taken place in the organisation of the Admiralty during the past year, and the changes reported in previous years are all working well. By a new Order in Council, dated 10th August, 1904, the final step was taken in the readjustment of the distribution of business to the Members of the Board by eliminating from the work of the Senior Naval Lord everything that is not concerned with important naval policy and the preparation of the Fleet for war. The opportunity was taken at the same time to restore the old title of Sea Lord, and the titles of the Naval Members of the Board henceforth will be First Sea Lord, Second Sea Lord, Third Sea Lord and Controller, Fourth Sea Lord.

I have to announce that the Board have appointed a special Committee to inquire into the present system of dockyard organisation and administration as it affects the *personnel* and the execution of ship-building and repairs. It is hoped that an increase of efficiency and of economy will result from the labours of the Committee, and it is especially desired that references and correspondence may be minimised, and that a fuller decentralisation of the dockyards from the Admiralty and an ampler devolution of responsibility upon the Admirals Superintendent may be achieved.

## PERSONNEL.

The Navy suffered a great loss in the death of Rear-Admiral H. J. May, who had inaugurated the war course at Greenwich with such singular success. His place has been taken by Captain E. J. W. Slade, M.V.O., R.N., and the work is proceeding satisfactorily. The Board, however, are of opinion that a great development could be given to the course if it could be transferred from Greenwich to Portsmouth, and provision is proposed under Vote 10 for building quarters on Whale Island for the sub-lieutenants now resident in the Naval College in Portsmouth Dockyard. Much loss of time will thereby be avoided to the sub-lieutenants undergoing their courses of gunnery, and the quarters at present occupied by them will become available for the officers attending the enlarged war course.

In my memorandum of last year I mentioned that a scheme had been adopted in connection with the medical branch and the chaplains of the Navy to enable young surgeons and young clergymen, who might not desire to make the Navy their permanent sphere of work, to join it for four or five years, at the end of which time they might either join the Service permanently at the discretion of the Admiralty or leave it with a substantial gratuity. It is still too soon to say whether this scheme is going to attract additional candidates for appointment, but I wish again to draw attention to it.

In September next the first batch of cadets who joined the Royal Naval College at Osborne will have completed two years there, and they will be transferred to the Royal Naval College at Dartmouth. Mr. Cyril E. Ashford, the first Headmaster of Osborne, who has inaugurated the teaching of the College so successfully, will be transferred to Dartmouth, and henceforth every cadet entering the Navy will pass his first two years at Osborne and his second two years at Dartmouth. The course of training will, of course, be consecutive. A few cadets have had to be withdrawn from the College, but none, I am happy to say, on account of unsatisfactory conduct. Those who have been withdrawn have been so withdrawn on the authority of the Board, after consultation with the Captain and Headmaster of the College, either on the ground that they were not likely to pass satisfactorily the examination out of the College at the end of their period of training or on the ground that they were not thoroughly suited to the conditions of naval life. The plan of inviting all boys who apply for nominations to appear before the Committee of Inspection has continued to work with complete success, and all applicants have been treated on the same basis and with scrupulous fairness.

The gunnery of the Fleet continues steadily to improve, and the Admiralty have decided, with the concurrence of the Treasury, to appoint a new officer called the Inspector of Target Practice. His duties will in no ways clash with those of the Director of Naval Ordnance. He will not be an Admiralty Officer, but, working under the superintendence of the First Sea Lord, he will visit the Fleets and Squadrons and supply the Commanders-in-Chief with the most recent information which the Admiralty have at their disposal.

The total number of officers, seamen, boys, and Royal Marines voted for the year 1904-5 was 131,100. The numbers asked for for 1905-6 are 129,000, showing a reduction of 2,100. This reduction is consequential on the policy, explained in my memorandum of the 6th December, eliminating from the Navy as many ships as possible that would be comparatively ineffective fighting factors in time of war. Vote 1 remains practically

of the same amount as for the current year, because when an increase of numbers takes place which is spread over all the weeks in the year, it is only necessary to take money for the pay of that increase for half a year, and, consequently, the sum based on an increase last year of 4,100 exactly meets the necessities of the case when there is a reduction of 2,100, after that increase has been attained. If there had not been this reduction of men and boys there would have been a considerable increase on the vote for pay.

The experiment of enlisting a certain number of non-continuous service seamen and stokers has been successful, and it is proposed to increase the proportion of men so enlisted with a view to increasing the numbers of the Royal Fleet Reserve. It is also proposed to give greater facilities to continuous service men of good character, who for some reason may desire to retire into civil life before the expiration of their period of engagement, to do so on condition that they join the Royal Fleet Reserve. The progress of the Royal Fleet Reserve continues satisfactory, and by the end of the present financial year Class B is expected to number more than 6,000 men.

Recruiting for the Royal Naval Reserve has also been satisfactory, but it is not necessary to increase the numbers beyond what they at present stand at, 29,500 men, owing to the steady increase of the Royal Fleet Reserve. The branch of the Royal Naval Reserve in Newfoundland continues to make good progress, and the branches in Australia and New Zealand have been well started during the year. The enlistment of Australians and New Zealanders for non-continuous service in the Royal Navy began during the year, and an excellent class of men have presented themselves. A small branch of the Royal Naval Reserve has also been established at Malta.

The Royal Naval Volunteer Reserve continues to do well, and strong divisions have been formed on the Thames, the Clyde, the Sussex coast, the Severn, and the Mersey, while a division is in progress of formation on the Tyne.

It will be recollected that the Committee on Naval Reserves, presided over by Sir Edward Grey, Bart., M.P., recommended that the Board should aim at a total Reserve force of 50 per cent. of the numbers required to mobilise the Fleet, harbour establishments, signal stations, etc., for war. I am glad to be able to report that this standard has now been reached, and that after such mobilisation for war the numbers of active service ratings, Royal Fleet Reserve, Royal Naval Reserve, and Royal Naval Volunteer Reserve, which would remain available, amount to the required total.

Altogether, whether for the active service ratings of the Navy, boys, youths, and men, for the Royal Marines, or for the Royal Naval Reserves, nothing could be more satisfactory than the numbers and quality of those wishing to join His Majesty's naval forces. Indeed, the number of eligible candidates is far in excess of the requirements.

#### CONSTRUCTION, RECONSTRUCTION, AND REPAIRS.

I have already explained the reasons for the diminution as compared with the current year of the sum (£9,566,000) asked for new construction for the year 1905-6. During the current year the work on the ships under construction, both in the Royal and private dockyards, has made steady and satisfactory progress. A delay of a few months beyond the time originally specified will take place in the completion of the armoured cruisers of the "Devonshire" class; but this delay was deliberately



incurred by the Board for the sake of improving the armament in these ships by the substitution of a certain number of 7·5-inch for 6-inch guns. Of the current year's programme the two battle-ships of the "Lord Nelson" class have been given out to contract, and three armoured cruisers have been begun in the Royal dockyards. In view of the changed conditions which have developed since the presentation of the Estimates of last year, the Board are prepared to take upon themselves the responsibility of recommending to Parliament that the fourth armoured cruiser and some of the destroyers of the year's programme should be postponed. Ten submarines have been ordered; one destroyer of the "River" class was bought ready made from the makers, and five ocean-going destroyers of a new type are on the eve of being ordered under circumstances which I will proceed to explain.

In the development of the destroyer class two qualities have successively predominated, speed and sea-keeping power. Their study of the tactical and other questions involved has led the Board to the conclusion that two classes of destroyer are required for the Navy, one for ocean work and the other for the narrow seas. They have accordingly decided to combine the qualities of speed and sea-keeping power in a special type of ocean-going destroyer, which will be expensive, and of which, therefore, the numbers must be comparatively few, and to design a new type of coastal destroyer which will be comparatively cheap, and of which, therefore, the numbers can be larger.

Between 1st April, 1904, and 31st March, 1905, inclusive, the following ships will have been completed, and become available for service :—

4 Battle-ships—

"King Edward VII."

"Swiftsure."

"Commonwealth."

"Triumph."

1 Armoured Cruiser—

"Cornwall."

4 Third-Class Cruisers—

"Sapphire."

"Topaze."

"Diamond."

"Amethyst."

12 Submarines.

9 Destroyers.

4 Torpedo-boats.

1 River Gun-boat, and

A new Admiralty Yacht.

On 1st April, 1905, there will be under construction :—

8 Battle-ships.

8 Scouts.

15 Armoured Cruisers.

18 Destroyers.

1 Second-Class Cruiser.

11 Submarines.

1 Third-Class Cruiser.

The work of reconstruction and rearmament which was begun two years ago in respect of the battle-ships of the "Barfleur" and "Royal Sovereign" classes, and in respect of the "Powerful" "Arrogant," and "Talbot" classes of cruisers, will have been completed by the end of the present financial year, except in the case of the "Eclipse," for which provision is made in these Estimates.

In my memorandum of 6th December last I stated that the Board had decided to appoint a special committee on designs to assist them, and the Director of Naval Construction in the consideration of certain questions to be submitted to it by the Board in connection with the

features of the future designs of different types of fighting ships. I have now to report the Committee has been constituted as follows, and is at work:—

Admiral Sir John Fisher, G.C.B. (President).

Rear-Admiral H.S.H. Prince Louis of Battenberg, G.C.B., G.C.V.O., A.D.C.

Engineer Rear-Admiral Sir John Durston, K.C.B., Engineer-in-Chief of the Fleet.

Rear-Admiral Alfred L. Winsloe, C.V.O., C.M.G.

Captain Henry B. Jackson, F.R.S., R.N.

Captain John R. Jellicoe, C.B., R.N.

Captain Reginald H. S. Bacon, D.S.O., R.N.

Captain Charles E. Madden, M.V.O., R.N.

Mr. Philip Watts, LL.D., D.Sc., F.R.S., Director of Naval Construction.

The Right Hon. The Lord Kelvin, O.M., G.C.V.O.

Professor J. H. Biles, Glasgow University.

Sir John Thornycroft, F.R.S., D.C.L.

Mr. Alexander Gracie (Fairfield Shipbuilding Co.).

Mr. R. E. Froude, F.R.S., Superintendent of Admiralty Experiment Works, Haslar.

Mr. W. H. Gard, M.V.O., Chief Constructor.

Commander Wilfred Henderson, R.N. (Secretary).

Mr. E. H. Mitchell, Assistant Constructor (Assistant Secretary).

The instructions to the Committee were drawn up by the Board after previous conference and consultation with the Commanders-in-Chief of the Channel and Atlantic Fleets, Admirals Sir Arthur Wilson, *V.C.*, K.C.B., and Lord Charles Beresford, K.C.B.

I may claim that the work of this Committee will enable the Board to ensure to the Navy the immediate benefit of the experience which is to be derived from the naval warfare between Russia and Japan and of the resultant studies of the Naval Intelligence Department. I can, however, hold out no hope that it will be consistent with the interests of the public service to publish either the reference to the Committee or its report.

It is proposed to begin during the financial year 1905-6:—

1 Battle-ship.

4 Armoured Cruisers.

5 Ocean-going Destroyers.

1 Ocean-going Destroyer of an experimental type.

12 Coastal Destroyers.

11 Submarines.

His Majesty has approved that the battle-ship should be called the "Dreadnought" and the first of the armoured cruisers the "Invincible."

The sum devoted to the commencement of new ships in 1905-6 is a little over one and a quarter million pounds, and the Board have great hopes of successfully inaugurating a policy of ship-building by which, while fewer ships will be under construction at the same moment than has lately been the case, the period of the completion of a ship will be materially shortened from the present average of 30 to 36 months.

It is also proposed to ask Parliament to provide money for the commencement of a second Royal yacht. Her late Majesty had three yachts of different sizes, for all of which she had constant use. One of these yachts has been replaced by the "Victoria and Albert," which, after encountering unfortunate vicissitudes on her first completion, is now established as a great success in yacht building. It is not proposed to replace

the "Alberta," but it is necessary that there should be a smaller yacht in addition to the big one, and, as the hull of the "Osborne" is worn out after 30 years' of service and she can no longer be certified as safe for His Majesty's general use if he should require to visit any port of his dominions or any Continental port into which the "Victoria and Albert" cannot enter, it is time that a new one should be commenced. A sum of £50,000 for the year's work has been inserted in these Estimates, subject to the approval of the House of Commons. The yacht will be put out to tender among a selected list of private firms.

The policy of sending ships to the private yards has fulfilled its object, and the arrears in the repairs of the Fleet have been mastered and are a thing of the past. It is not, therefore, necessary to provide next year for the repairs of any ships at the private yards, and henceforth it should be borne in mind that the first business of the Royal Dockyards is to keep the Fleet in repair, and accordingly the amount of new construction allotted to those dockyards should be subordinated to this main consideration. We have now in the United Kingdom a splendid national asset in the numerous private yards, and experience has shown that, whereas new construction can certainly be as cheaply executed in them as in the Royal Dockyards, all repairs are more economically effected in the Royal than in the private dockyards.

Considerable anxiety has been felt from time to time as to the possible exhaustion of the South Wales coal beds producing the coal most suitable for use in ships of war, and many suggestions have been made to the Board of Admiralty that they ought to purchase collieries and coalfields to be held as a reserve. The Report of the Royal Commission on Coal Supplies shows, however, that the resources of such coal still remaining unworked are so vast that the requirements of the Navy may be considered as provided for for so many years to come that all anxiety upon the subject is removed.

The experiments in connection with the use of oil fuel still continue, but it is now quite certain that oil has taken its place as part of the fuel of the Navy, and every arrangement is being made for its supply, storage and distribution.

#### DISTRIBUTION OF THE FLEET.

As a logical consequence of the policy explained in my memorandum on 6th December last, it has become possible to effect considerable economies in some of the dockyards outside the United Kingdom. Accordingly, those at Halifax, Esquimalt, Jamaica, and Trincomalee will be reduced to cadres, on which the expenditure in time of peace will be small, but which can in time of war be at once developed according to necessity. The expenditure at Ascension will also be reduced.

In that memorandum I made no allusion to the distribution of torpedo craft, and I have now to report that in completion of their programme of redistribution it has been decided by the Board to appoint a rear-admiral in place of a captain to be in general charge of all torpedo craft in home waters under the admiral commanding the Channel Fleet. At Devonport and at Portsmouth eight, and at Chatham four, torpedo-boats have been put into permanent commission, while flotillas of submarine boats are also in course of organisation.

Since the commencement of the year over one hundred vessels of various classes have been successfully commissioned in reserve, and the battleships and cruisers in commission in reserve at Devonport have made their first cruise and had their first gunnery and torpedo practice at sea under the flag officer in command of that reserve squadron.

I append the usual statement of the work done in the past year by the various departments of the Admiralty.

14th February, 1905.

SELBORNE.

### THE ESTIMATES.

The Navy Estimates for the year 1905-06 have been issued as a Parliamentary Paper [51] and the following is an abstract showing the increases and decreases as compared with the corresponding votes for last year :—

Votes.		Net Estimates.		Difference on Net Estimates.	
		1905-1906.	1904-1905.	Increase.	Decrease.
		Total Numbers.	Total Numbers.	Numbers.	Numbers.
A	I.—Numbers. Total number of officers, seamen, boys, Coastguard, and Royal Marines ...	129,000	131,100	—	2,100
		£	£	£	£
	II.—Effective Services.				
1	Wages, etc., of officers, seamen, and boys, Coastguard and Royal Marines	6,672,000	6,691,000	—	19,000
2	Victualling and clothing for the Navy ...	2,256,600	2,428,000	—	171,400
3	Medical establishments and services ...	277,500	293,000	—	15,500
4	Martial law ...	14,000	15,500	—	1,500
5	Educational services ...	161,900	154,000	7,900	—
6	Scientific services ...	69,300	72,600	—	3,300
7	Royal Naval Reserves ...	420,600	404,500	16,100	—
8	Shipbuilding, Repairs, Maintenance, etc. :—				
	Section I.—Personnel	2,768,300	3,044,200	—	275,900
	Section II.—Matériel	4,816,900	5,062,800	—	245,900
	Section III.—Contract work ...	7,827,800	10,314,000	—	2,486,200
9	Naval armaments ...	2,986,000	3,646,000	—	660,000
10	Works, buildings, and repairs at home and abroad	1,905,200	1,634,200	271,000	—
11	Miscellaneous effective services ...	454,000	444,000	10,000	—
12	Admiralty Office ...	336,400	327,400	9,000	—
	Total effective services	30,966,500	34,531,200	314,000	3,878,700
	III.—Non-Effective Services.				
13	Half-pay, reserved, and retired pay ...	800,900	796,200	4,700	—
14	Naval and marine pensions, gratuities, and compassionate allowances ...	1,233,900	1,208,800	25,100	—
15	Civil pensions and gratuities ...	388,200	353,300	34,900	—
	Total non-effective services ...	2,423,000	2,358,300	64,700	—
	Grand total ..	33,389,500	36,889,500	378,700	3,878,700
	Net decrease ...	...	...	...	£3,500,000

FRANCE.—The following are the principal appointments which have been made: Vice-Admiral—C. P. Touchard to be Chief of the General Staff of the Navy. Rear-Admiral — P. A. Campion to Command of Cruiser Division of the Mediterranean Fleet. Capitaines de vaisseau—M. G. Hautefeuille to Command of Pacific Naval Division; H. De Faubournet de Montferrand to "Bouvet"; P. P. Thibault to "Hoche"; E. P. A. Guépratte to "Marseillaise"; C. P. Rihouet to "Desaix"; J. M. Mallet to Command of Submarine Defences at Toulon; P. F. Delaruelle to Command of Naval Division in Corsica. Capitaines de frégate—L. F. D'Hespel to "Bombarde" and of the Destroyer Flotilla of the Squadron of the North; A. A. F. Lefèvre to "Manche"; L. E. Sagot-Duvaureux to "Javeline" and Destroyer Flotilla of the China Squadron; L. A. Viard to "Ibis" for Fishery Protection in Channel and North Sea; M. F. Grasset to "Vautour"; E. M. C. Barthes to Dunkirk *Défense-Mobile*; L. E. A. Jochaud du Plessix to Brest *Défense-Mobile*; C. F. Didelot to "Mousqueton" and Destroyer Flotilla of Mediterranean Fleet; A. Lotte to "Marigot" and Senegal Naval Station; M. Morre to Command of Submarines at Cherbourg.

Vice-Admiral Touchard, who relinquishes the post of Commander-in-Chief of the 1<sup>e</sup> Arrondissement Maritime (Cherbourg) to become Chief of the General Staff of the Navy, is in his 61st year; entering the Service when sixteen years of age, he has had a long and distinguished career, and in view of the slowness of promotion, as a rule, in the French Navy, he is one of the fortunate officers. Vice-Admiral Gourdon completes his two years' period of command of the Mediterranean Fleet next September, and it is believed that Vice-Admiral Touchard will be his successor.

Rear-Admiral Campion, who vacates the post of Chief of the General Staff at the Ministry of Marine, succeeds Rear-Admiral Antoine in command of the Cruiser Division of the Mediterranean Fleet. He has won golden opinions during the period he has held office at the General Staff, as he has displayed great tact and ability in the discharge of his duties, which were rendered more difficult owing to the eccentricities of M. Pelletan, the late Minister of Marine. Rear-Admiral Campion will not hoist his flag in the "Desaix," his predecessor's flag-ship, but in the "Marseillaise," which is the largest ship in the division; his flag-captain will be Capitaine de vaisseau Guépratte, and his Chief of Staff Capitaine de Frégate Batellet, who was staff officer to M. Pelletan, and recently the Secretary to the Parliamentary Enquiry into the state of the Navy.

A Presidential decree ordains that for the future the coast-defence battle-ships of the "Caïman" class are to be commanded by capitaines de frégate, instead of capitaines de vaisseau, as are also the old armoured cruisers of the "Charner" type; an exception is made, however, in regard to the "Requin" and "Bruix," as these two ships will carry the flags of the officers appointed in case of mobilisation to the command of the two Reserve Divisions formed of the ships of these two classes. The two divisions in question consist of four coast-defence battle-ships and four armoured cruisers respectively, the first-named having a speed of 14 knots and the second of 17 knots.

The second-class cruiser "Catinat" was commissioned at Lorient on the 15th ult. for service in the Pacific, where she will relieve the second-class cruiser "Protet"; as she has to carry through her trials after the

thorough repairs she has undergone, it is unlikely that she will be ready to leave much before the end of the present month; she will carry the Senior Officer's pennant of Capitaine de vaisseau Hautefeuille.

The first-class cruiser "Guichen," having satisfactorily concluded her commissioning trials at Brest, when she attained a speed of 19 knots, with the engines making 112 revolutions at full speed under natural draught, left on the evening of the 7th January for China, where she will relieve her sister-ship, "Chateaurenault," which has to return to France for repairs.

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*New Constructions (1905).*—The Naval Estimates for the current year only provide for the laying down of seven new vessels, of which the last is to be ready for commissioning in 1909; the total cost of these ships will amount to 68,236,722 francs (£2,729,469), which will be spread over six years, including the small preparatory expenses incurred last year. These ships will include the two first-class armoured cruisers "C16" (the "Edgard Quinet"), details of which appeared in the Notes in the November No. of the JOURNAL, 1904, and "C17"; the torpedo-boat destroyers "M40," "M41," "M42," and "M43," and the 2nd class despatch-vessel "Chamois," which is to take the place of the "Elan," now used as the pilotage training-school. Details of the new cruiser "C17" have not yet been published, but it is understood that she will be of the same type as the "Edgard Quinet," in which case she will be of 14,300 tons displacement, with engines to develop 40,000-I.H.P., giving a speed of 24 knots. As the armament of the French armoured cruisers is admittedly weak, when compared with the latest English designs, the probability is that she will have a heavier armament than the "Edgard Quinet," although that of the last-named ship is in every respect superior to her predecessors, notably by the substitution of two of the new 24-cm. (9·4-inch) guns for the four 19·4-cm. (7·4-inch) guns, carried in the earlier ships.

The new destroyers "M40" to "M43" are to have a displacement of 336 tons, with a length of 190·29 feet, a beam of 19 feet 9 inches, and a draught of 9 feet 6 inches; the engines are to develop 6,800-I.H.P., to give a speed of 28 knots. The coal supply will be 30 tons, giving a radius of action of 2,300 miles. The armament will consist of one 6-pounder Q.F. and six 3-pounder Q.F. guns, with two torpedo-tubes for 17·7-inch torpedoes.

The new aviso "Chamois," whose construction has been voted now year after year for some years, without any attempt being made to lay her down, is at last to be commenced, as the "Elan," which she is to replace, is no longer really seaworthy. Her dimensions will be:—Length, 164 feet 2 inches; beam, 24 feet 6 inches, with a displacement of 431 tons and a draught of water of 7 feet; her boilers will be water-tube of the Du Temple-Guyot small-tube type, and she is to develop 600-I.H.P. Twenty *torpilleurs-de-haute-mer* are also to be laid down, and credits will be taken for the completion or pushing forward of thirty-nine others.

Eight submarines, "Q53" to "Q60," are also to be commenced, and six others of the "Émeraude" type, "Q47" to "Q52," laid down last year, are to be pushed to completion.

The so-called 1900 Programme, which was introduced by M. de Lanessan, when he was Minister of Marine, and passed by both Chambers, is now at last in a fair way to be completed; but there has been a delay



of two years in carrying out its execution, and it will cost 36,500,000 francs (£1,460,000) more than was originally estimated. In regard to the delay incurred, the modifications introduced into the original plans of some of the ships has been undoubtedly one cause, but it is admitted by the Ministry of Marine that the adoption of the eight hours' day in the dockyards has also contributed not a little towards it.

In his Report on the Naval Estimates, to which we shall have occasion to refer again, M. Bos records it as his opinion that the building Programme for 1905 is insufficient, in view of the efforts being made by other Powers to increase their naval strength, and he thinks it necessary that a new and further programme should be brought forward, if the French Navy is to hold its present position. He would leave it to the Ministry of Marine to determine what the type of the new units should be, but he himself inclines to the construction of powerful armoured cruisers of high speed, with sufficient coal supply to ensure their having a considerable radius of action.

The discussion on the Naval Budget in the French Chamber of Deputies, to which we shall refer at greater length next month, concluded on the 23rd ult., after a striking speech by M. Thomson, the new Minister of Marine, with an overwhelming vote in favour of the Government introducing without delay a new building programme for the fleet. It is a matter of interest to other naval Powers that France seems to have at last woken to the necessity for a considerable addition to her Navy, if she is to maintain her proud position of being the second naval Power of the world; and it is also interesting, that like Great Britain, she is at last recognising that the steady growth of the German fleet is the menacing factor of the future.

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The following vessels were added to the effective list during 1904:—

*First-class armoured cruisers*—“Amiral Aube,” “Gloire,” and “Condé,” all of 10,000 tons, 20,000-I.H.P., and 21 knots speed; “Desaix,” “Kleber,” of 7,735 tons, 17,000-I.H.P., and 21 knots speed.

*Torpedo-boat destroyers*—“Arc,” “Baliste,” “Bélier,” “Dard,” “Francisque,” “Mousqueton,” “Sabre,” “Sarbacane,” all of 303 tons, with a speed of from 28 to 30 knots. These vessels are the last of their type to be completed. The new destroyers of the “Claymore” class are about 50 tons larger, and are to have a speed of 30 knots.

Eleven torpedo-boats up to No. 292, and eight submarines of the 68-ton class.

The principal ships completing or under trial are:—

*First-class battle-ships*—“République,” launched at Brest, 4th September, 1902; “Patrie,” launched at La Seyne, 17th December, 1903; “Démocratie,” launched at Brest, 1st May, 1904; “Justice,” launched at La Seyne, 27th October, 1904; all of 14,865 tons, 18,000-I.H.P., and 18 knots speed.

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at Toulon, 5th July, 1901, of 9,516 tons, 19,600-I.H.P., and 21 knots speed (has now recommenced her trials, which were interrupted last March, owing to her having strained her hull).

The following large vessels are building:—

*First-class battle-ships*—"Liberté," at St. Nazaire; "Vérité," at Bordeaux; both of 14,865 tons, 18,000-I.H.P., and 18 knots speed.

*First-class armoured cruisers*—"Jules Michelet," at Lorient, of 12,550 tons, 27,500-I.H.P., and 22 knots speed; "Ernest Renan," at Penhoët, St. Nazaire, of 13,562 tons, 40,000-I.H.P., and 23 knots; "Edgard Quinet," at Brest, just laid down, of 14,300 tons, 40,000-I.H.P., and 24 knots speed.

The *Yacht* recommends the Ministry of Marine to follow the example of the English Admiralty, and strike off the effective list many ships which are quite obsolete. It considers that at least 18 cruisers and some 60 torpedo-boats should be so struck off, and regrets that owing to the lamentable deficiency of the French Navy in cruisers, it is still necessary to retain on the active list vessels which have but little fighting value, like the cruisers "Tage," "Cécille," "Isly," and "Jean Bart."

The same paper regrets that owing to the delay in carrying out certain structural modifications in the new submersible "Aigrette," the comparative trials between her and the new submarine "Z" have not as yet led to any decided results. This delay is to be regretted, as in consequence of it, eleven other submersibles of the same class will not now be ready for their trials this year, as they ought to have been; and the delay, which has been sanctioned, is the more to be regretted as these vessels, with their 2,000 miles radius of action, without any alteration in their design, would have been quite effective for offensive purposes, until something better had been designed.

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*The Extra-Parliamentary Commission on the Navy.*—At its meeting on 30th December, the Extra-Parliamentary Commission on the Navy had under consideration the case of the attempted raising of the destroyer "Espignole," sunk off Cape Lardier, near Toulon, early in 1903.

M. Tissier, Chief of the Cabinet of the Minister of Marine, gave evidence, and stated that after some unsuccessful attempts, the Préfet Maritime of Toulon, Vice-Admiral Bienaimé, advised that the work should be offered to a Danish salvage company, and at the same time M. Lanthiome, a contractor, who undertakes diving operations, tendered for the work. The Danish company declined to make an offer on account of the great depth of water in which the "Espignole" was lying. There was only one other tender from a firm that asked for 300,000 francs (£12,000) in case of success. Under these circumstances the Minister of Marine gave the work to M. Lanthiome, but the admiral objected to this decision.

M. Lanthiome had in his employ divers who were accustomed to work at great depths, but he had no gear or appliances, and orders were given that he should be allowed to borrow from the dockyard stores at Toulon what he required. It has been said that the Navy expended a great deal of money in complying with M. Lanthiome's demands, but M. Tissier affirmed that the materials lent him were still serviceable, and that the expenses incurred by the Navy did not exceed 30,000 francs (£1,200), while M. Lanthiome had expended between 50,000 and 60,000

francs (£2,000 and £2,400). The operations only failed owing to the difficulties caused by the heavy swell.

M. Lanthiome experienced great difficulty and opposition from the dockyard in obtaining the loan of the materials he required in accordance with his contract. "I, as Chief of the Minister's Office," said M. Tissier, "gave orders according to my instructions, and the Minister also directed me to have a stop put to this unjustifiable resistance by the port of Toulon." M. Tissier also informed the Commission that Vice-Admiral Bienaimé failed to loyally carry out the orders of the Minister, and that in the case of the trials of the "Sully" and the question of the laicisation of the hospitals he took up a similar attitude. He was always in conflict with the chiefs of the Minister's Cabinet because he dared not attack the Minister himself.

After some discussion the Commission decided to call for further documents and papers to elucidate the matter.

It will be remembered that Vice-Admiral Bienaimé's attitude at the time of the trials of the "Sully," and the communication of official documents to the newspapers (which he denies) was the cause of his being relieved of his appointment as Préfet Maritime of Toulon by the Minister of Marine.

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*The Stranding of the "Sully."* — The first-class armoured cruiser "Sully," a vessel of 10,000 tons displacement, and a speed of 21 knots, one of the division of three new armoured cruisers, forming the most important portion of Vice-Admiral Bayle's command, struck on a rock in Along Bay, in the Gulf of Tonquin, on the 6th ult., when leaving her anchorage in the Bay to proceed to sea for target practice. It was at first supposed that the "Sully" had struck on some pinnacle rock, which, as is often the case, the most careful surveyors fail to detect and locate, for Along Bay is well surveyed; but this would not appear to be the case, as official reports state that she struck on a rock marked on the chart as the Canot; everything, of course, is being done to save her, but the position of the vessel is so critical, owing to the danger of her slipping off the rock and sinking in deep water, that her crew have been taken off her. The damage she has sustained seems to have been very great; her bows are reported to be completely under water, and she has a heavy list to port. Vice-Admiral Bayle had sent to Hong Kong to engage the services of the salvage firms there, as there does not seem to be in the Saigon Dockyard the appliances necessary for undertaking salvage work on a large scale. According to the latest telegrams received from the Commander-in-Chief, he reports that the salvage operations are proceeding satisfactorily, and he hopes that the ship may be floated about the middle of the present month. Should she be successfully floated, and the monsoon permits, the ship will probably be sent to Hong Kong for repairs, in preference to Saigon. The stranding of the "Sully" is the second serious accident which has befallen the China Squadron during the last four months, as quite recently the first-class cruiser "Chateaurenault," the flag-ship of the Second Division of the squadron, went on shore on an unknown reef, sustaining such injury that she is to be relieved by the "Guichen" and return to France.—*Le Yacht, Le Temps, and L'Echo de Paris.*

## MILITARY NOTES.

### PRINCIPAL APPOINTMENTS AND PROMOTIONS FOR FEBRUARY, 1905.

General—General Sir G. D. Barker, K.C.B., to be Colonel of The Prince of Wales's (North Staffordshire Regiment).

Lieut.-Generals—Lieut.-General Sir H. R. L. Newdigate, K.C.B., to be Colonel Commandant of The Rifle Brigade (The Prince Consort's Own). Lieut.-General Sir I. S. M. Hamilton, K.C.B., D.S.O., to be Colonel of The Queen's Own Cameron Highlanders.

Colonels — Lieut.-Colonel and Brevet Colonel H. M. Owen, C.B., M.V.O., from h.p., to be an Assistant Inspector of Remounts, and is granted the substantive rank of Colonel in the Army. Lieut.-Colonel G. J. Butcher, C.M.G., Ordnance Officer, Second Class, to be an Ordnance Officer, First Class, with the substantive rank of Colonel in the Army. Brevet Colonel H. Finn is granted the local rank of Major-General whilst holding the appointment of Inspector-General of the Military Forces of the Commonwealth of Australia. Colonel W. A. Dunne, C.B., to be Director of Supplies and Transport at Gibraltar.

HOME.—*New Horse and Field Artillery Equipments.*—The following particulars of the new 13-pounder and 18-pounder Q.F. field guns have been communicated by the Army Council:—

Particulars.	13-pounder.	18-pounder.
Muzzle velocity ... ..	1,658 f.s.	1,610 f.s.
Calibre ... ..	3 inches.	3·3 inches.
Weight ... ..	6 cwt.	9 cwt.
Breech Mechanism ... ..	Swinging block.	Swinging block.
Rifling {Grooves, Number ... ..	18	18
Twist ... ..	Uniform.	Uniform.
Firing Mechanism ... ..	Percussion.	Percussion.
	cwts. qrs. lbs.	cwts. qrs. lbs.
Approximate weight of gun and carriage ... ..	18 0 12	23 3 3
" " carriage limber (filled) ... ..	12 0 0	14 3 3
" " behind traces ... ..	30 0 12	38 2 6
No. of rounds in carriage limber ... ..	24	24
	cwts. qrs. lbs.	cwts. qrs. lbs.
Approximate weight of wagon (filled) ... ..	15 1 21	19 1 14
" " limber (filled) ... ..	14 1 27	18 1 16
" " behind traces ... ..	29 3 20	37 3 2
No. of rounds in wagon limber ... ..	38	38
" " wagon ... ..	38	38
Height to axis of Gun from ground ... ..	3 feet ·86 inch.	3 feet ·86 inch.
Wheels {Track ... ..	5 feet 2 inches.	5 feet 2 inches.
Height ... ..	4 feet 8 inches.	4 feet 8 inches.
Weight of projectile (filled and fuze) ... ..	12½ lbs.	18½ lbs.
Ammunition ... ..	Fixed and fitted with percussion primer.	Fixed and fitted with percussion primer.

*War Office (A 2),  
6th February, 1905.*



*Annual Report of Recruiting for the Year ended 30th September, 1904.*  
—Major-General H. G. Miles, C.V.O., C.B., Director of Recruiting and Organisation, has issued his report on the recruiting operations up to the 30th September, 1904. This report is divided into 4 parts, viz.:—

- I.—General Observations and Recruiting for the Regular Army.
- II.—Army Reserve.
- III.—Militia, Reserve of Militia, and Imperial Yeomanry.
- IV.—Civil Employment of Discharged Soldiers and Reservists.

I.—GENERAL OBSERVATIONS AND RECRUITING FOR THE ARMY.

In the re-organisation of the War Office, the appointment of the Inspector-General of Recruiting was abolished, and the duties assigned to the Director of Recruiting and Organisation, who administers the recruiting Service in connection with other duties. He is not charged with the inspection of recruits. The number of recruits who joined the Regular Army, excluding Colonial corps, for the twelve months under review amounted to 41,279, and for the Militia 35,264. These numbers cannot of course compare with the numbers shown in the last annual report, as that report only dealt with a period of nine months. As stated in the preceding report, the numbers taken have been restricted owing to the fact that all the mounted corps had not fallen to their normal peace establishment, but were still largely in excess owing to the special recruiting during the South African War. In consequence of these excesses, the cavalry has practically remained closed to recruiting. The Royal Horse Artillery and Royal Field Artillery have been practically closed for drivers and partially for gunners. The Royal Army Medical Corps and Army Service Corps have also been closed, while the Royal Engineers have been closed except for drivers and some special trades. The Army Ordnance Corps has been closed except at the headquarters of the corps.

The regulation that all recruits shall produce characters before leaving accepted for the Regular Army or Militia has had satisfactory results throughout the year. In the last report, reference was made to the necessity of preventing the enlistment of recruits by means of false characters, and the necessary Bill was prepared, but owing to pressure of work it was not possible to obtain sanction of Parliament. It is trusted that Parliament will find time during the coming session to deal with this important matter. The standards of measurements for recruits have been the same as in the preceding year, the Royal Artillery and Royal Engineers and Army Service Corps being recruited at the higher standards brought into force in March, 1903.

One new corps has been formed during the past year, namely, the Army Veterinary Corps, and special rates of pay have been laid down for those non-commissioned officers and men joining the corps.

In order to popularise the Army among the friends and relatives of serving soldiers, and at the same time enable them to follow the career of the men enlisting, a proposal was made that officers commanding units should send to the officer commanding the depot lists of promotions, successes, honours, etc., gained by soldiers during their career with the colours, whether in peace or on active service. It was considered that

the publication of such details was likely to prove an incentive to men of the more respectable classes to embark upon a military career. Complimentary notices embodying the information received have from time to time been sent to the editors of the local newspapers, and in many cases the local Press has given every facility for their insertion.

The recruiting regulations have been thoroughly revised and issued during the year. Recruiting for the Royal Artillery, considering the restrictions enforced and the higher standard introduced in March, 1903, may be considered as satisfactory. Recruiting for the Foot Guards, while showing a slight increase has been unsatisfactory, as the recruits obtained have not been sufficient to bring the several regiments up to their proper establishment, though this establishment was reduced on the 1st April. In order to lessen this deficiency certain regulations have been relaxed in these corps; for example, as a tentative measure, non-commissioned officers and men are now allowed to extend their service for periods of a year at a time instead of being required to extend to the full period of eight years. Men extending for these short periods cannot draw service pay, but are eligible to extend their service to the full period of eight years at any time, and thereby qualify for the grant. Recruiting for the Infantry of the Line has been satisfactory, but this is largely attributable to the fact that recruits had no option but to join the infantry, other arms, owing to their surplus, being closed to recruiting.

The subjoined table shows the number of recruits enlisted during the twelve months ended 30th September, 1904, for the various arms of the Service, ex-soldiers re-enlisted, for a minimum service of 4 years at home or abroad, and ex-soldiers who joined the Royal Garrison Regiment:—

Arms of the Service.	Ordinary Recruits.	Ex-soldiers re-enlisted under A.O. 106 of 1900.	Ex-soldiers re-enlisted under A.O. 35 of 1903.	Total.
Household Cavalry ... ..	114	—	—	114
Cavalry of the Line ... ..	489	2	—	491
Royal Horse and Field ... ..	2,353	—	—	2,353
Artillery (Garrison ... ..	3,845	—	—	3,845
Royal Engineers ... ..	1,112	—	—	1,112
Foot Guards ... ..	1,996	—	—	1,996
Infantry of the Line ... ..	29,742	8	—	29,750
Royal Garrison Regiment ... ..	—	—	561	561
Colonial Corps ... ..	792	—	—	792
Army Service Corps ... ..	1,155	—	—	1,155
Army Ordnance Corps ... ..	175	—	—	175
Royal Army Medical Corps ... ..	298	—	—	298
Army Pay Corps ... ..	—	—	—	—
Army Post Office Corps ... ..	—	—	—	—
Total ... ..	42,071	10	561	42,642

The following table shows the total number of recruits joined (exclusive of those for Colonial corps), the numbers taken under any of the standards, and the percentage under standard, during the twelve months ended 30 September, 1904, as compared with the previous four years:—

—	1900.	1901.	1902.*		First 9 months of 1903.	Year ended 30.9.04.
			During first quarter.	During remaining quarters.		
Total recruits joined ...	47,700†	45,157†	13,103†	37,650†	28,183	41,279
Number under any of the standards	14,524	14,840	3,943	4,297	1,722	531
Percentage under standard...	3.04	32.9	30.1	11.4	6.1	1.2
16.2						

\*The table has been divided into two parts for 1902, owing to the introduction of the new system of medical examination, which commenced in the second quarter of the year, under which the number of men specially enlisted has considerably decreased.

†Excluding men specially raised during the war, and ex-soldiers re-enlisted under Army Order 106 of 1900.

The number of Militiamen who joined the Regular Forces during the last four years and nine months is given below:—

Corps which the men joined.	1900.	1901.	1902.	First 9 months of 1903.	12 months ended 30.9.04
Regular Army ... ..	10,715	14,907	18,379	11,870	14,932
Royal Navy or Royal Marines ...	247	666	615	559	716
Total ... ..	10,962	15,573	18,994	12,429	15,648

The number of recruits raised for the Regular Army and the Militia by the various agencies during the past twelve months, and the number obtained in each recruiting area for the Regular Army during the past five years was 40,431. The number of recruits raised by the sergeant-instructors of Volunteers and the permanent staff of the Yeomanry for the year ended 30th September, 1904, is:—Army, 4,752; Militia, 3,086; as compared to:—Army, 2,575; Militia, 1,521, for the first nine months of 1903.

## II.—ARMY RESERVE.

The strength of the Army Reserve, as was to be expected, shows a material increase over the numbers on the 1st October, 1903, and unless the men enlisted for three years extend their service to a much greater extent in the future, the strength of the Army Reserve will be even larger than it is at present.

The following table shows the strength of the Army Reserve during the past four years and nine months, and also the numbers belonging to the various arms of the Service, and to each section of the Reserve:—

Date.	Arms of the Service.												Total Strength.
	Household Cavalry.	Cavalry.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Royal Army Medical Corps.	Army Ordnance Corps.	Army Post Office Corps.	Army Pay Corps.	Colonial Corps.	
1st Jan., 1900	...	3,255	3,337	1,178	1,323	13,907	1,205	16	15	4	7	110	24,130
" 1901	...	496	1,238	261	349	2,670	275	8	5	1	4	103	5,251
" 1902	...	285	927	243	237	342	206	8	5	42	1	102	2,398
" 1903	...	2,028	4,881	1,559	3,904	18,656	1,278	328	55	43	8	125	32,865
1st Oct., 1903	...	5,599	7,841	2,657	5,790	40,403	2,488	1,095	130	198	17	253	66,471
" 1904	17	5,773	8,896	2,996	6,281	45,885	3,093	1,280	127	237	17	339	74,940

The figures for 1900 are affected as regards all classes of the Reserve by the numbers recalled to the colours on mobilisation, viz., 54,320.

### III.—MILITIA, RESERVE OF THE MILITIA, AND IMPERIAL YEOMANRY.

Recruiting for the Militia for the nine months of the current year shows an increase over the corresponding period of 1903, but taking the figures for the twelve months under review, the totals are much the same as in the preceding twelve months. The recruits enlisting are reported to be inferior in physique to those offering for the Regular Army, but the reports from the districts state that the recruits rapidly improve in physique. Reports from many districts state that recruits merely join the Militia in order to develop sufficiently to enter the Regular Army. In some instances it has been reported that the statements made in the public Press as regards impending changes in the Militia have produced a feeling of uncertainty, and have detrimentally affected recruiting.

Representations having been made that in the interests of recruiting, Militia battalions should, as far as practicable, train in the vicinity of their headquarters, and not be brigaded or assembled together oftener than once in three years, a circular letter was sent to general officers commanding, who were desired to make the best arrangements for the training of the units in their command during 1904, consistent with the training and efficiency of the units, and the interests of recruiting. In several cases the reports attribute the increased numbers in units to the fact that the latter have trained in their own districts. The regulation requiring characters for Militia recruits is stated to have produced good results during the past year, and it is satisfactory to note that the net loss from desertion shows a decreased percentage.

At the end of 1903 the standard of height for the Militia was reduced from 5 feet 3 inches to 5 feet 2 inches, but this lower standard was made applicable only to growing lads under 20 years of age.

The aggregate strength of the Militia by arms and distribution is as follows:—

Serving on the	English.	Scotch.	Irish.	Total.	Arms.				Total.
					Royal Artil- lery.	Royal Engi- neers.	In- fantry.	Royal Army Medical Corps.	
1st Jan., 1900 .....	64,653	11,163	22,314	98,130	14,446	1,665	81,795	224	98,130
" 1901 .....	64,168	10,031	18,542	92,741	13,535	1,750	77,293	163	92,741
" 1902 .....	72,764	11,182	18,899	102,845	14,382	1,959	85,936	568	102,845
" 1903 .....	72,694	11,481	18,245	102,420	13,878	1,969	85,741	332	102,420
Oct., 1903 .....	62,455	10,210	17,078	89,743	13,310	2,049	73,643	741	89,743
" 1904 .....	59,287	10,048	17,156	86,491	13,352	2,020	70,421	698	86,491

#### *Imperial Yeomanry.*

The Imperial Yeomanry on the 1st October, 1904, was only 250 under its establishment. The establishment, however, was reduced on the 1st April from 32,708 to 25,752, exclusive of officers and permanent staff. In consequence of the reduction in the establishment of the Imperial Yeomanry, which took effect from the 1st April, several units were in excess of establishment and were obliged to discontinue recruiting until the existing supernumeraries were absorbed. Instructions were issued that such supernumeraries might be retained and, if efficient, be allowed to re-engage, even though the unit was still in excess of establishment. Instructions were also issued during the recent trainings dealing with the question of yeomen whose term of service expired during the training, and excusing such men from attendance should they so desire. A new recruiting poster has been issued during the year. The number of recruits taken during the twelve months of the year ended 30th September, 1904, amounts to 5,547, as compared with 7,009 for the preceding nine months. The enrolled strength of the Imperial Yeomanry on the 1st October, 1904, amounted to 25,502, the establishment being 25,752.

#### CIVIL EMPLOYMENT.

The important question of providing civil employment for Army Reserve men and discharged soldiers has received anxious consideration during the last year, and it is satisfactory to notice that while 25,498 men have been discharged or transferred to the Reserve with a good, very good, or exemplary character, no less than 21,815 ex-soldiers have been provided with employment. The country has barely recovered from the effects of the South African War, and trade generally throughout the United Kingdom has been quiet. Consequently it has been a matter of considerable difficulty to provide employment for the large number of men passing to the Reserve. The National Association has been unremitting in its efforts to provide employment for ex-soldiers, but in view of the general slackness of trade, the results shown do not quite come up to those of the previous year. The Soldiers' and Sailors' Help Society is also doing good work in obtaining employment for ex-soldiers, and in order to draw the attention of serving soldiers to the advantages of this society, permission has been given for its notice card to be exhibited in all regimental institutions.

*General Remarks as to Civil Employment.*

The following table records the number who left the colours with characters entitling them to registration for civil employment. The total number is shown for whom employment was found by means of official registers, the employment societies, and in departments under the War Office. It will be seen that 25,498 men returned to civil life during the year with satisfactory characters, and that 21,815 ex-soldiers have either been provided with employment or have had situations to go to:—

Number discharged or transferred to the Reserve with	{	"Exemplary" characters	...	...	...	2,244	
		"Very good" characters	...	...	...	11,553	
		"Good" characters	...	...	...	11,701	
Total						<u>25,498</u>	
Number of men for whom employment has been found ...	{	War Office Register (messengers, etc.)	...	...	91		
		*Regimental District Registers (affiliated to National Association)	...	...	6,483		
		National Association (London office only)	...	1,426			
		Soldiers' and Sailors' Help Society (London office only)	...	863			
		Pensioners' Employment Society	...	738			
		Guards' Employment Society	...	270			
		Departments under the War Office.	Army Clothing Department	...	3		
			Works and Fortifications Department	...	56		
			Ordnance Factories	...	327		1,463
			Barrack Wardens, Barrack La- bourers	...	400		
			Army Ordnance Department	...	641		
			Clerks in War Office	...	36		
			Men who are known to have themselves obtained employment	...	10,481		
		General Total					

*Concluding Remarks.*

From the annual reports received from general officers commanding and officers commanding regimental districts, it is clear that there exists a considerable divergence of opinion as to whether the new rates of pay which have come into force have materially affected the recruiting market. In some districts the improvement made in the returns for the past year is directly attributed to the changes made in the pay of the soldier, and the fact that the improvement has begun to be well understood throughout the district. In other districts the improved pay is stated to have had no effect on the number of recruits offering. It must be borne in mind, however, that nearly all the men who have extended their service have been sent out of the United Kingdom as drafts, and therefore the increase of pay which they have received is being spent abroad and not amongst their relations and friends at home. The same divergence of opinion is shown as regards the dress of the soldier, more

\*Of this number, employment was found for 742 men by the National Association branches, other than the London office, while temporary employment was found for 100 not included in above figures. These figures are only for the last six months of the period under review, the figures for the entire period not being available.



especially with reference to the cap which he now wears. On one point, however, there is a unanimity of opinion, namely, that the regulation requiring a character from a recruit on enlistment has materially resulted in raising the tone of the Army, and popularising it among the better class of the population. Officers commanding recruiting areas are, on the whole, satisfied with the physique of recruits for the Regular Army, and state that the recruits for the Militia rapidly improve after a short time at the dépôt. The behaviour of both classes at the dépôts is described as satisfactory, there being practically no crime. The educational standard is not as satisfactory as it should be, several instances occurring where it is stated to be only described as "fair," while in several districts in Ireland it is "indifferent," and complaint is made of the number of illiterates. Endeavours are being made to arrange for the appointment of a special medical inspector of recruits in each of the commands in order to obtain uniformity in recruiting procedure, and to ensure co-ordination of standard requirements at all stations in each command. Attention has been drawn in previous reports to the number of rejections for medical reasons in the various recruiting districts. This percentage is as high as 34.39 per cent., and in addition to these numbers a large proportion are rejected by recruiters or recruiting officers for physical or medical reasons. In certain districts the rejection for teeth are very heavy. The question of medical rejections is of great importance, and requires serious consideration in view of the large number of recruits that must annually be obtained. It may be that when the new pay conditions are thoroughly understood, recruits of a higher social class and physical development may be attracted; but it is unsatisfactory that such a large number of lads should fail, for various reasons, to attain to the standard required for entrance into the Army—a standard which cannot be considered exacting. In this connection, the reports from many regimental districts show that a large number of recruits join the Militia solely with the intention of qualifying in physique for the Army. Service in the Militia and Volunteers has in the past assisted in improving the physique of the working classes by the drill and training and the open-air exercise thereby necessitated, and has done much to popularise the Service, and this process will no doubt continue; it is further desirable that means should be provided by which the physique of the young lads from whom our recruits must be drawn may be not only maintained as at present, but improved. In some districts prejudice still exists against service in the Regular Army. This is shown in various ways. For example, influence is sometimes brought even from the pulpit against the work of the recruiter. In other cases, exhibitions purporting to represent incidents in the life of a soldier are calculated to cast ridicule on His Majesty's Service. Such instances have been brought to notice, and a circular was sent to general officers commanding requesting them to instruct commanding officers to ascertain before in any way giving assistance to public entertainments that they contain nothing of a character likely to cast ridicule on His Majesty's uniform, or give a false impression of the Service. It may be that the injury done by such exhibitions was not intentional, but its effect is none the less real. The work of recruiting might be facilitated by the aid of Parliament. In the future it is probable that advertisements will be largely resorted to for recruiting, and may go far to supersede existing agencies. If provision were made that advertisements connected with the Army and the Navy must be exhibited in the case of the railways at each station on the line, considerable assistance would be given to the recruiting

authorities, and the space occupied would be small. At present, in the case of the large railways, the whole of the advertising space at any station is let off to some large advertising contractor, and with the small sum voted for advertising for recruiting for the Army, the cost of displaying advertisements at railway stations is prohibitive. The importance of civil employment in attracting young men of a higher social class to the colours is laid stress on by several officers commanding regimental districts. In connection with this subject, it will be observed that only nine appointments have been filled during the year in Government Offices outside the War Office, while the number of ex-soldiers employed in departments under Government shows a material diminution. This question is not a new one, but it will not be satisfactorily solved until seriously taken in hand by Parliament. It is of vital importance for recruiting and for the attraction of a better class of recruit, that employment shall be secured to deserving soldiers on leaving the colours. In view of these facts, it may be hoped that instructions will be issued that vacancies in Government Departments shall be filled by suitable ex-soldiers if possible, and only from outside sources when no suitable military candidate is forthcoming.

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AUSTRIA-HUNGARY.—*Special Employments in the Army.*—An analysis of the Austro-Hungarian war budget for the years 1904 and 1905 brings to light a certain number of changes in the organisation of the cadres of the common Army, the object of which is the recruitment of officers for special duties, such as clothing, supply, etc. The Austro-Hungarian Army is at present going through a crisis characterised by a dearth of candidates for officers' commissions. Reading one of the tables attached to the draft of the financial law for 1904, submitted to the Hungarian Parliament, the following figures will be found regarding the annual gains and losses of the corps of officers :—

During the six years from 1898 to 1904, the corps of officers, amounting to 16,405 in 1904, lost an average of 7 per cent. of its effective, or 1,148 units. To fill the vacancies thus produced the War Department utilises :—

1. Pupils of the military schools and academies to the number of 2,187.<sup>1</sup> This total is distributed into 3 or 4 batches of promotions, according to the establishments concerned. But if it is borne in mind that the two latest promotions are slightly more numerous than former ones, a quarter of the whole may be regarded as the total number of youths available for the cadres of the Army in 1904, which would give, according to the promotions of August last, 545 cadets or officers.
2. Reserve officers appointed to the active cadres and the rank and file who pass the cadets' examination, altogether about 100.

Such are the resources—about 645—which the War Department usually has at its disposal to face the 1,148 vacancies in 1904; 500 units are therefore still lacking. Before such a situation, appropriate measures

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<sup>1</sup> The two academies alone show a deficit of 169 pupils.

were necessary, and the Administration has not hesitated to modify the Army cadres. It has acted on the following principle:—

To reserve for the combatant cadres the whole of the young men trained and educated for the department, and to take either from outside of them, or from amongst the overworked units all the organisation requisite for ensuring the working of the accessory services.

The specialisation of these latter, therefore, is absolutely necessary from henceforward. The changes introduced in this sense since 1903, and continued in 1904, deal with the clothing and supply of the soldiers. An innovation is, even, about to be introduced into the corps of regimental paymasters. The latter, which does not concern combatant officers, is the result of a series of measures taken with regard to re-engaged non-commissioned officers. Whilst endeavouring to ensure the recruiting of cadres, the War Department has been engrossed for several years with the problem of how to increase the number of re-engagements, and to utilise them to the best advantage for carrying out the various accessory services. Finally, the special dispositions also modify the position and the recruitment of officers detached as professors to military schools.

*Clothing.*—Up to the present time officers in charge of the men's clothing were temporarily selected and detached for that purpose from their respective units. This method of procedure, besides taking officers away from their natural functions, the time, comparatively short, during which they ordinarily carried out these special duties, did not permit of their performing them in a highly satisfactory manner. At the same time the *matériel* entrusted to them was frequently of great pecuniary value, and consequently of budgetary interest. The budget for 1905 provided the necessary credits for the provisional formation of 87 officers in charge of clothing. The total number necessary for infantry and cavalry corps will amount to 174, or one officer, captain or lieutenant, to each corps. These officers will be absolutely specialised, and will not be able to return to their regiments.

*Supply.*—A special corps of supply officers was formed by an Imperial and Royal decision of the 23rd April, 1904. Its duties are to ensure the supply of rations in corps, military establishments, and, on service, to the Staffs. It forms a distinct corps, consisting of two classes of captains, first lieutenants, and lieutenants, to whom assistants are attached. It will be recruited from amongst non-commissioned officers; candidates will have to undergo a special course for nine months, after which they will be appointed assistants. After at least a year's service in the latter rank the non-commissioned officers will be finally admitted to the corps, and appointed *Leutenant Proviant Offiziere*. The replacing of all the officers at present detached to carry out these duties will be gradually carried out as the *Proviant Offiziere* are appointed. It is estimated that it will take ten years to thoroughly constitute the new corps. It must, therefore, be supposed that a certain number of officers now performing those duties will be given new rank and drafted into the new corps.

*Paymasters.* — Paymasters of corps (*Truppen-Rechnungsführer*) are already recruited from non-commissioned officers. The officers of the Pay Department are provided with assistants by an order of the 2nd May, 1904. The latter are entitled to the pay of an assistant cadet officer and, receive, in addition, the engagement bounty of a first-class sergeant-major. This measure is the result of a series of dispositions to increase the advantages to re-engaged non-commissioned officers. A

special endeavour is made to retain re-engaged men who have been over-worked in the Regular Army, by classifying them, after a few years, as paymaster-assistants with a higher rank.—*Revue du Service de l'Intendance Militaire*.

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JAPAN.—*Some Details Regarding the Army.*—The *Kölnische Zeitung* in a letter from Tokio, has recently published some interesting particulars with regard to the Japanese Army, of which the following is a summary:—

On Wednesday afternoons no military duties are performed. With the exception of men on guard, every soldier may leave barracks. Excursions in the neighbourhood are occasionally made from small garrison stations, but the Japanese soldier does not readily go on leave. In Tokio only the Guards' Cavalry Regiment has its barracks in the town, in the vicinity of the Mikado's palace and park. All other regiments lie in the outskirts, some regiments, indeed, of the 1st Division a long way off. When soldiers quartered in the outskirts are given leave they go into the town, preferably to relations, and spend the whole day or afternoon with them in their houses. From 10 to 20 of those who have no relations in Tokio club together and hire a room in a private house in order to spend the time there in the same way as at home until it is time to return to barracks, which they must do at 8 p.m. at the latest. Both *saki* and beer are drunk, but not in any quantity, as a drunken soldier is heavily punished.

Soldiers' punishments consist either in arrest or in standing on a plank or table until he admits the crime of which he is suspected, or in a sharp blow on the cheek administered by a non-commissioned officer. All soldiers are divided into 3 classes, which coincide, as a rule, with the 3 years' period of service. At the same time, promotion to the next higher class depends on a man's performances and conduct. Even a well-conducted soldier only gets about two weeks' leave in the 3 years. Exception is made in the event of a family bereavement, or in other important cases. Leave for harvesting is unknown. Uniforms are very simple. There is, for instance, only one description of cavalry, the men of which wear red trousers and black jackets. In summer the whole Army is dressed in *khaki*, which took the place of the former white clothing after the experiences of the war with China in 1894-95. Gymnastics and marching are diligently practised. Marching comes easily to a Japanese from birth. Gymnastics were comparatively little known in the whole of Japan until a short time ago, being at first regarded as a dangerous sport by parents of youths, and was for some time carried out somewhat roughly by the military. Matters have, however, now greatly improved in that respect, and soldiers to-day readily practise gymnastics. Night manoeuvres frequently take place; as in the Navy so in the Army, they are carried out occasionally during the week. Great attention is paid to shooting in all branches of the Service; judging distance is constantly practised; finally, special stress is laid on the importance of the officer training the men to the highest initiative. The one-year volunteer, who pays in advance the whole cost of clothing, maintenance, and, in the cavalry, of forage, is obliged for a certain period—about 3 months—to live in barracks, but may afterwards hire lodgings. The right to a one year's period of service is contingent on the exit examination at the middle schools.

The already simple uniform is still further simplified on mobilisation; the infantry officer leaves off his black breast-cords, which distinguish him from the non-commissioned officers and men; the whole of the cavalry lose their red and the artillery their yellow cords. The officer is thus, at a little distance, quite undistinguishable from the rank and file, and runs but small danger of being made a target of by the enemy. As mentioned before, the whole Army wears khâki in summer. On mobilisation every soldier receives a red woollen blanket, a second pair of leather shoes (cavalry and artillery long boots), which are buckled on to the outside of the valise.<sup>1</sup> The company has distributed amongst the men dried and pressed vegetables, dried fish, preserved meat, highly pressed *shoju* (extract of beans), as well as saki and cigarettes in small quantities. There is still great mystery over the new soldiers' cooking vessels. They are supposed to be composed of paper made fire-proof by some chemical process. These are carried under the valise. The efficiency of the field post is now being tested for the first time, and has been most satisfactory. At the same time the soldiers' postal arrangements are managed with the utmost secrecy. The soldier on service may not say to what regiment he belongs and from where he will embark. He can correspond through the post, but must omit all information as regards place and time. Those writing to him from home have their letters fully addressed by the military officials. — *Internationale Revue über die gesamten Armeen und Flotten.*

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## WAR NOTES.

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Milder weather has apparently prevailed in Manchuria since the 19th February last, and on that date the Japanese took the initiative, pushing forward a force under General Kuroki towards Tsin-khe-chen, a place about 30 miles east of Pen-hsi-hu, on the Russian left flank, held by about 17,000 Russian troops, under General Linevitch. On the 23rd February the Japanese delivered an assault on the position, which lasted till the evening of the 24th, when the Russians broke and fled northwards, leaving ammunition and rifles in the hands of the enemy, who took possession of Ta-ling and of the pass between Ta-ling and Kan-tie-ling, thus threatening the Russian left flank. In the meantime the Japanese assumed the offensive along their entire line. The centre, on the Sha-ho, under General Nodzu, occupied a couple of positions and subjected the Russians to a heavy bombardment. Their left Army, under General Oku, carried the first line of the Russian defences from Chang-tan to Su-fang-tai, and drove the enemy back to within 12½ miles of Mukden. A whole series of positions were captured, including Hsin-min-tin, and great quantities of stores and supplies were taken. By this time the real nature of Marshal Oyama's plan of attack was apparent, viz.: seeking to roll up the Russian right, and to get into their rear to the westward, while holding their centre and left by continuous assaults on their positions in those quarters. On the 2nd March a force of about

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<sup>1</sup> In his valise the soldier carries dried rice and some salted plums, and has also a bamboo tube and water with him.

1,400 Japanese cavalry appeared suddenly at Hsin-min-tin, and seized stores there which were about to be forwarded by the Chinese to the Russian Army. The Japanese left Army, under Generals Oku and Nogi, continued its rapid advance N.W. on the 5th, captured several positions, and drove the Russians before them in disorder, the advance guard capturing and holding a position about 4 miles from Mukden. On both flanks the fighting has been desperate. The general tenor of the news received on the 8th March indicates that the Japanese are gaining ground at almost every point, and that the Russians have commenced a retreat which can only be effected with the utmost difficulty. Official Japanese telegrams briefly state that the Russians were dislodged from the Manchun-tan position, 15 miles S.E. of Fu-shun, early on the morning of the 8th inst., and were pursued northwards; that on the extreme E., Huai-jen, 50 miles S.E. of Shing-king, was occupied on the 7th inst., and that in the Sha-ho district and W. of the railway, as well as at Li-kuan-pan on the right bank of the Hun-ho, Russian counter-attacks have been everywhere successfully repulsed. Reports from General Kuroki's Army state that the Russians have evacuated the whole line of the Sha-ho, and are in full retreat northwards, closely pursued by the Japanese infantry. Before retreating, the Russians set fire to large stores of supplies. General Oku's forces are steadily drawing nearer to Mukden, and have cut the railway between that place and Tieh-ling.

Official telegrams received in Tokio on the 10th March from Marshal Oyama state that the Japanese occupied Mukden on the morning of that day, that the enveloping movement, which had been proceeding for several days, had been entirely successful, and that the Japanese had taken a great number of prisoners and quantities of arms, ammunition, provisions, fodder, and stores. The Russians were driven out of Ti-ta on the morning of the 9th March, and were pursued. Fu-shun was captured by the Japanese the same night. The Russian retreat would now appear to have become a rout. According to official telegrams from Tokio, a strong Russian force was still offering resistance in the hills N. of Fu-shun. All the Russian troops in the positions between the railway and the Mukden high road lost all formation in the course of the afternoon of the 10th March, and streamed N. under a concentrated fire from the Japanese artillery and infantry, which inflicted heavy losses, whilst another Japanese column, reaching the Pa-ho, 12 miles N.E. of Mukden, intercepted the fleeing Russians, and on the 11th a large body of the fugitives were surrounded and compelled to surrender. Marshal Oyama reported on the afternoon of the 12th that the Russian losses up to date were approximately as follows, viz.:—Prisoners, 40,000; killed, 26,500; other casualties, 90,000; whilst 60 guns, 60,000 rifles, 1,000 wagons, 200,000 shells, and 25,000,000 rounds small arms ammunition were amongst the spoils. The total Japanese casualties amounted to 41,222. The shattered remnants of General Kuropatkin's Army have apparently reached Tieh-ling, and the general himself has tendered his resignation.



## CORRESPONDENCE.

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### AMMUNITION SUPPLY, UP TO THE FIRING LINE.

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*To the Editor of the JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION.*

SIR,—The history of the recent war in South Africa, the rapid rate of fire, the numerous surrenders and the lost opportunities recorded, all go to show more and more, the difficulty of replenishing the supply of ammunition for both gun and rifle, and also the absolute necessity of a good supply of both being at the required place at the required time.

Hence, it seems that the efficient bringing of this ammunition up to the unit when needed, wherever it may happen to be, whether in the heat of action, in camp, or on the line of march, should be treated as a special military art, and I submit that it is one which up to now has not received the attention which is due to it.

The few lines given to the subject in our Regulations merely appear to lay stress on the difficulty of ammunition supply, both in the unit and before the said ammunition reaches the unit; but the means suggested to meet it seem rather to increase the labour than to aid in efficiently solving the question.

To deal for one moment with the infantry only, in view of the fact that a battalion, nowadays, is very often spread over a wide area, and that men under fire are often unable to budge a foot for hours together, is it wise to take such a large proportion of the reserve ammunition away from the C.O.'s control at the very outset, and in doing so to add one more care to the anxieties of a Brigadier, by making him responsible for an improvised brigade ammunition reserve, even though it is commanded by a mounted officer of the Brigade? Surely, when the number of our mounted officers is so small, the said officer, if any use at all, would be more good in the fighting ranks of his own unit, wherein the C.O. often has to look in vain for even one officer a company. Such a difficult duty as that of bringing up ammunition to the fighting line in war will, I venture to think, never be efficiently carried out, until it is handed over permanently to some corps whose officers, non-commissioned officers and men will study the duty on all occasions during the preparing times of peace. The men who now bring up the ammunition in war are never (bar a very small minimum) by any chance those who have studied the duty in peace.

Few will, I think, deny that this is one of the most difficult duties of modern war, and yet we leave it to unravel itself when the times come without practically a single officer to think out its questions or to work out its problem, beforehand.

To wander a little from my text, for a few lines, I will in this connection say, that I think that the proper officer in the cavalry and infantry to take care of and to issue the ammunition to the firing line is the quartermaster. It seems unsound to keep one who was once presumably one of the best non-commissioned officers in the corps, back out of the fighting line in charge of bread and meat.

Many democrats say, that rankers are the best officers. Put this to the test; use them as combatant officers to take care of and to bring up and issue, to the firing lines of their units, the ammunition which the ammunition column commanders will under this scheme hand over to

them, on the battle-field if necessary and possible. Let the sergeant-major and staff sergeants, under the quartermaster's orders, assisted by the bandsmen, bad shots, pioneers, or other selected ammunition carriers, distribute the ammunition to the rank and file whenever opportunity presents itself, or the enemy's fire permits, and let this duty be practised at every field-day by them. It is not enough to put in the Regulations that it should be done, and then to take no more trouble about it, for experience shows that when a flabby "should be" appears in an order, vice the more definite "will be," then, in the former case, too often nothing is ever done at all.

To return to my text, I think that the care of and the bringing up, of gun ammunition to the batteries, and of rifle ammunition to the other units, should be the duty pure and simple, of the *Ordnance Department*, be they home or Indian.

The Indian ordnance officer, being a gunner, already knows a good deal about horses and their management, both in stable and in the field, and some of them, too, being old field gunners or mountain battery men, are even more at home with horses and mules than are the majority of Army officers.

At home, some ordnance officers are drawn from infantry units, and these might require some special training in horse-mastership and driving. From enquiries made I suggest that the majority of ordnance officers would welcome the change, which would cause them to receive a slight but regular out-of-door relief from the irksomeness of constant office life, and which would, at the same time, make them specialists responsible for one of the most important services in modern war, that is the supply and care of ammunition reserves from the base up to and actually in the line of battle. At present, the Ordnance Department appears to have no responsibility for ammunition nearer to the front than the advanced depôts and parks.

Guided by history, we may well ask, where would Ladysmith have been had not the Ordnance Department itself brought up the large supply of ammunition which it did at the last moment?

Moreover, it may safely be predicted, that the question being thus permanently in the hands of one special set of officers who have voluntarily joined the department, and not in the hands of a succession of purely temporary officers in charge, would receive that amount of study and care not only which it requires, but which a large body of zealous and diligent officers would gladly bestow upon it if it were once made their permanent work.

The extra cost could be no objection, as in the first place you cannot pay too highly for ensuring a good ammunition supply in the fighting line; and secondly, the ammunition columns are already allowed for in the Budget.

The scheme only, so far, suggests the transfer of the vote, whatever it may grow to be, and of the duty, from the Royal Artillery to the Ordnance Department entirely.

Is it in accordance with human nature, that we should find that keenness or *esprit de corps*, which in bad times on service is needed to urge one on to make superhuman efforts to bring up, say rifle ammunition to an infantry force, in an officer who, under the present system, finds himself in charge of an ammunition column in war, and that, too, when all the time he feels himself slighted and disappointed by being taken away, against his will, from the service of the guns he loves so well, to perform a duty which, in his wounded professional opinion, could well be relegated to the second line transport?

I in no way wish to infer that in the last war our ammunition column commanders did not most loyally carry out their duty; but I submit that they did so in spite of, and not because of, the existing Regulations, and because they happened to be so well selected for the work. But in the case of European complications it would indeed be a bold man who can assert, that we should have the same fine class of artillery officer to spare for the duty at all.

The Ordnance Departments are already charged with the providing, holding, issuing, and accounting for gun and rifle ammunition; let them be so charged right up to the fighting unit itself, with no other intermediate corps or organisation to play about between.

BRIGADE MAJOR.

## NAVAL AND MILITARY CALENDAR.

FEBRUARY, 1905.

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- 3rd (F.) General Grippenbergh quitted his command in Manchuria after a quarrel with the Russian Commander-in-Chief, General Kuropatkin.
- 4th (Sat.) The rebellion in Argentina was suppressed.
- 7th (Tu.) H.M.S. "King Edward VII." commissioned at Devonport for Atlantic Fleet.
- 7th (Tu.) H.M.S. "Diamond" commissioned at Devonport for North America and West Indies.
- " " No. 46 Co. Royal Garrison Artillery left Sierra Leone for England in the "Biafra."
- 8th (W.) H.M.S. "Fearless" paid off at Portsmouth.
- " " 1st Bn. Royal Irish Regiment arrived in India from South Africa in the "Avoca."
- 15th (W.) A Russian Cavalry force, 9,000 strong, attempted to cross the Hun-ho and cut the Japanese line of communication, but were repulsed with loss.
- 17th (F.) 1st Bn. King's Own Yorkshire Light Infantry left England for Gibraltar in the "Dilwara."
- " " The Grand Duke Sergius was assassinated by a bomb in Moscow.
- 19th (S.) The Japanese commenced a turning movement against both the Russian flanks.
- 21st (Tu.) No. 46 Co. Royal Garrison Artillery arrived at Dover from Sierra Leone in the "Biafra."
- 22nd (W.) 1st Bn. King's Own Yorkshire Light Infantry arrived at Gibraltar from England in the "Dilwara."
- " " 1st Bn. Lancashire Fusiliers left Gibraltar for Malta in the "Dilwara."
- 23rd (Th.) The Japanese, under General Kuroki, attacked the Russians under General Linevitch, estimated 17,000 strong, in their entrenchments at Tsin-khe-chen on the Russian left flank, and totally defeated them. The Russians evacuated their entrenchments, leaving 3 machine guns, 200 rifles, and about 2,000 killed and wounded.
- 24th (F.) The Japanese occupied the Ta-ling and other passes threatening Fu-shan and Mukden.
- 25th (Sat.) H.M.S. "King Edward VII." left Plymouth for Gibraltar.

- 27th (M.) His Majesty visited Rear-Admiral H.S.H. Prince Louis of Battenberg on board H.M.S. "Drake."  
 " " H.M.S. "Hannibal" paid off at Portsmouth.  
 " " H.M.S. "Dido" paid off at Chatham.  
 " " 1st Bn. Lancashire Fusiliers arrived at Malta from Gibraltar in the "Dilwara."  
 " " 1st Bn. King's Royal Rifle Corps left Malta for Egypt in the "Dilwara."  
 28th (T.) His Majesty inspected H.M.S. "Drake."  
 " " H.M.S. "Hannibal" commissioned at Portsmouth for service in Channel Fleet.

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## NOTICES OF BOOKS.

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*The Services of the Bengal Native Army.* Compiled in the office of the A.G. in India by Lieutenant F. G. CARDEW: Superintendent of Government Printing, India.

This monumental work, which has been in preparation since 1890, was originally compiled by Lieutenant Cardew, of the 10th Bengal Lancers, was then revised by Mr. G. W. de Rhé-Philipe, in the Military Department of the Government of India, and was only completed early in 1903. It begins with the year 1681, at which date Bengal first became independent of Madras, when the "Agent and Governor in the Bay of Bengal and the factories subordinate" took with him from Madras one corporal and twenty Sepoys; the story ends in October, 1894, with the abolition of the Presidential Army system.

Nothing has struck us more in reading this book than the apparently haphazard way in which the Bengal Army grew up—increasing not only in a natural manner with the growth of the dominions of the great Company, but with the inclusion of regiments raised here and there to meet some temporary local need; with the wholesale purchase of special corps—as when Lord Cornwallis gave De Boigne, the great adventurer, three-and-a-half lakhs of rupees for his gorgeous bodyguard; and by the truly British method of enlisting men to fight for us who had but just ceased to serve in the ranks of our enemies. There was no definite system—the Army grew in times of danger and aggression, and when peace and economy were the order of the day, corps were disbanded or re-numbered, soldiers were turned into policemen, and constables became fighting men. And yet through it all how well those quiet men at home in Leadenhall Street were served, and how well the Sepoys of the Bengal Army fought for the masters they never saw; and there is scarcely a page in this history which does not recount how the Bengal Army has been building up for its successors a great tradition and an inspiring example. But the book contains also many curious bits of ancient history which will well repay perusal. In the mention of the mutiny among the British officers which followed upon Clive's abolition of double field batta, we read that when this measure was discussed, two old captains of the Presidency had formed a committee to draw up an estimate of such extraordinary *monthly* expenses as they considered necessary on field service. They headed their paper: "Necessary for a Captain during a Campaign," and their list included the following:—

			Rs. a.			Rs. a.
Madeira Wine	...	30 bottles at	1 8	...	...	45 0
Beer	...	30 " "	0 12	...	...	22 8
Arrack	...	15 " "	0 4	...	...	3 12

One cannot help feeling that these captains lived before their time, and that they would have been in their element in those South African mobile columns which were said to carry with them pianos and harmoniums! The native cavalry seem at first to have been thought less of than the infantry, and as late as 1772 the whole body of cavalry was disbanded, a departing Commander-in-Chief having gracefully expressed his opinion that "the black cavalry are at present of no further use than to attend the Commander-in-Chief and the colonels of brigades." For years the native cavalry of Bengal were mounted solely upon entire horses, successive Commanders-in-Chief being of opinion that "the general employ-

ment of geldings would tend to the great deterioration of the efficiency of the cavalry in India"; and consequently it was not until at late as 1847 that a regiment was, as a tentative measure, mounted upon geldings. In a General Order dated 18th July, 1778, we find, with reference to the training of the Sepoys—whose shooting is now fully equal to that of any infantry in the world—that the annual allowance of ammunition for musketry was but ten rounds per man!

The Bengal Army, which in its earlier days had been in every way so admirable, and which had performed such distinguished service, first began to show signs of deterioration and of failure to keep the promise of its former years, about the period of the campaigns in Sindh; crime increased, courts-martial trebled in number, regiments ordered to Sindh refused to march and their Sepoys applied for their discharge. The officers humoured their men instead of enforcing discipline, and the authorities, with criminal weakness, granted discharges to men who obviously demanded them merely in order to evade unpopular service. When finally the Indian Mutiny broke out, the new cartridge was not a cause but a pretext; for thirty years previously the *moral* of the Army had been steadily weakening; for thirty years past the evil had been growing and deepening. "The months of wild tumult and convulsion which followed the spring of 1857 witnessed the extinction of three-fourths of that Army which it had taken exactly a century to form; many of the finest—most of the oldest—regiments succumbed to the mania of revolt, and the maintenance of the British Empire in India devolved in a great degree upon corps which were raised from amongst people who, eight years before, had been our bitterest foes. To a great part of the Bengal Army of the Company the Mutiny was a dishonourable and suicidal death; but from its remains arose, phoenix-like, a new Army, more efficient and more valuable, and destined to win a renown as glorious as that which had been gained under Adams and Monro, Goddard and Coote, and Cornwallis and Lake, and Ochterlony."

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*Instructions for Practice—Horse and Field Artillery.* Official. 8vo. 6d. (Presented.) (Harrison & Sons.) London, 1905.

*Das Gefechtsmässige Abtheilungsschiessen der Infanterie und das Schiessen mit Maschinengewehren.* By Lieut.-General H. ROHNE. 8vo. 3s. (Ernst Siegfried Mittler & Sohn.) Berlin, 1905.

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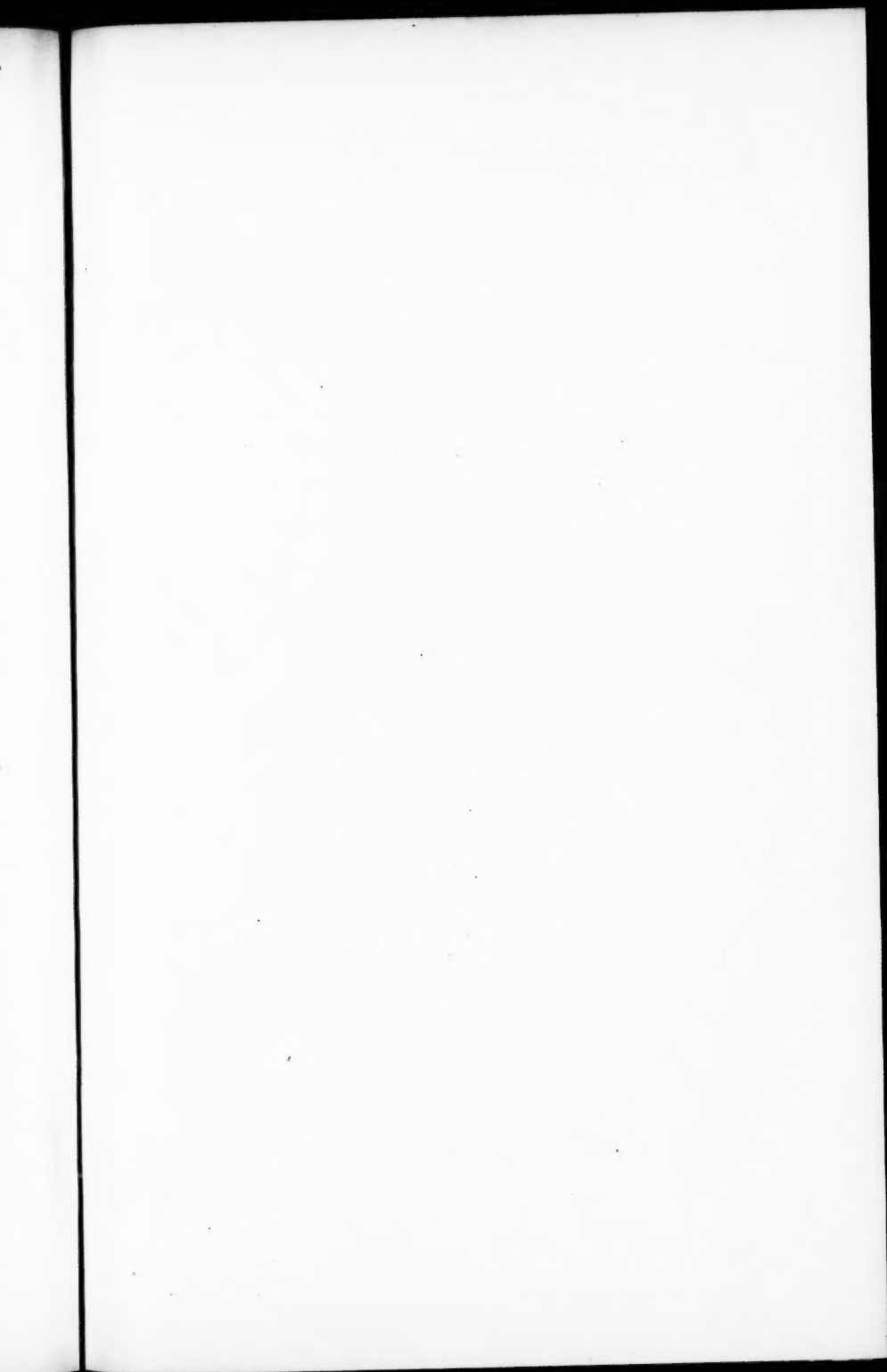
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